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Liability of Local Governments for Earthquake Hazards and Losses

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Association of Bay Area Governments

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LIABILITY OF LOCAL GOVERNMENTS FOR EARTHQUAKE HAZARDS AND LOSSES

BACKGROUND RESEARCH REPORTS

October 1988

Association of Bay Area Governments

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The research and production of this report were financed by the National Science Foundation's Earthquake Hazard Reduction Program. The report does not reflect the views of any federal agency, including the National Science Foundation. The conclusions listed are by ABAG staff only.

BACKGROUND

In 1987-1988, under a grant from the National Science Foundation, the Association of Bay Area Governments (ABAG) studied the potential liability of the private sector for injuries and damage resulting from an earthquake. The final report from that project is Liability of Local Governments for Earthquake Hazards and Losses: A Guide to the Law and its Impacts in the States of California, Alaska, Utah and Washington (the Guide). It will be available in February 1989.

The Guide will summarize and integrate the three background research reports reproduced in this document. No attempt has been made to edit these reports into a single format. They are merely being made available for those who may wish to examine all of the data gathered in the research effort. Those wishing an integrated report should examine the Guide.

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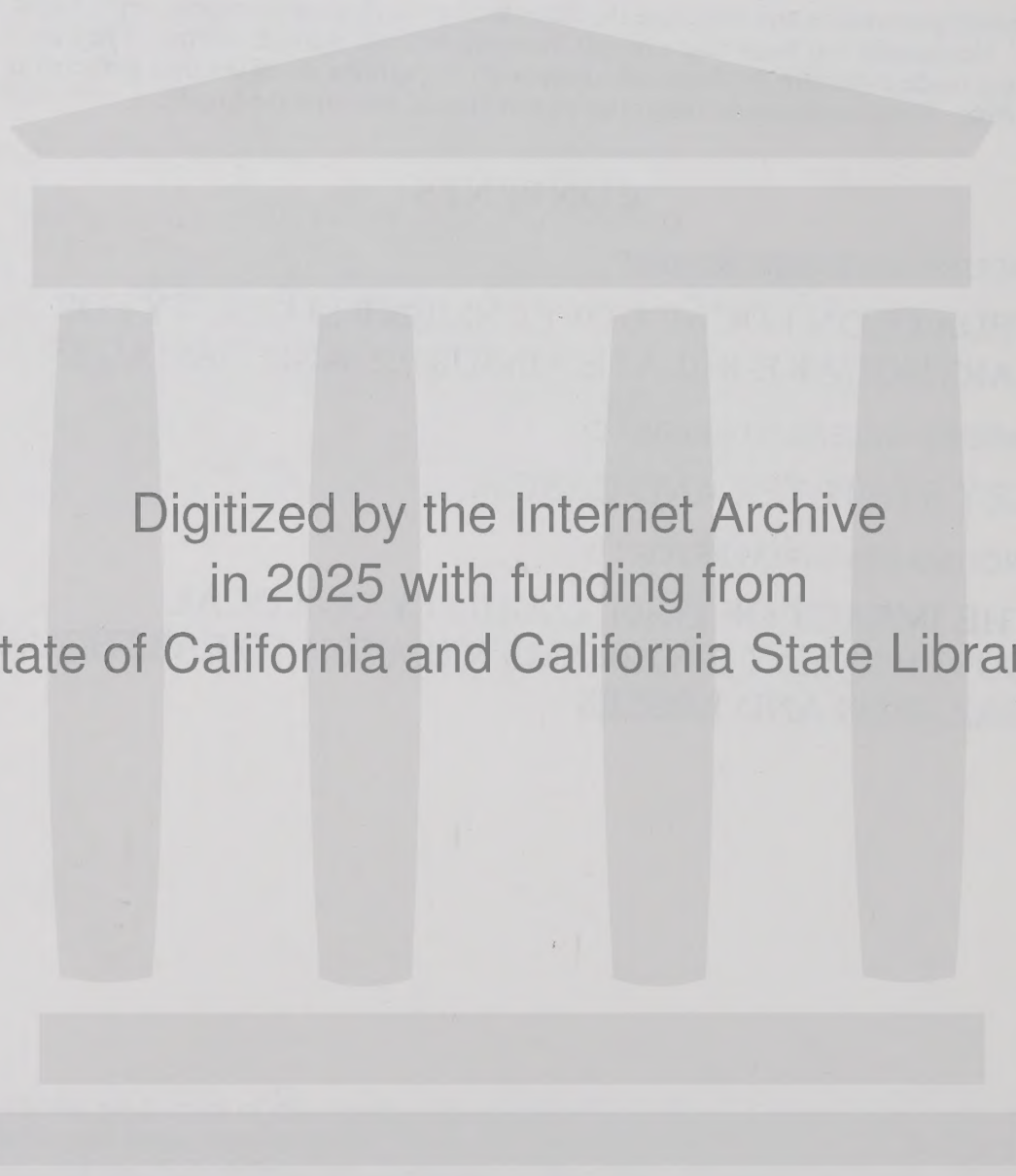
UPDATE ON LOCAL GOVERNMENT LIABILITY FOR EARTHQUAKE-RELATED INJURIES AND DAMAGES

BACKGROUND RESEARCH REPORT 2:

KEY STATUTES AND CASES

BACKGROUND RESEARCH REPORT 3:

THE IMPACT OF TORT LIABILITY ON LOCAL GOVERNMENT PROGRAMS RELATED TO EARTHQUAKE HAZARDS AND LOSSES



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BACKGROUND RESEARCH REPORT #1

**UPDATE ON LOCAL GOVERNMENT
LIABILITY FOR EARTHQUAKE-RELATED
INJURIES AND DAMAGES**

October 1988

Association of Bay Area Governments

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I. BACKGROUND AND ACKNOWLEDGMENT

Under a grant from the National Science Foundation, the Association of Bay Area Governments (ABAG) issued a report authored by Professor Gary Schwartz, Professor of Law, University of California at Los Angeles School of Law, titled Legal References on Earthquake Hazards and Local Government Liability (December 1978). The earlier report outlined the local government tort liability systems of the states of Alaska, California, New York and Washington, and the Federal tort liability system. The earlier report also examined the legal basis for the potential tort liability of local governments for injuries and damages resulting from a moderate earthquake. These legal theories were then applied to three possible sources of liability for each of the jurisdictions studied: (1) the negligent issuance of an earthquake warning or the negligent failure to issue an earthquake warning; (2) the collapse during an earthquake of a private building; (3) the collapse during an earthquake of a public building; and (4) negligent seismic safety planning and emergency response to a moderate earthquake (California law only).

This background report updates and summarizes changes in the laws of the states of Alaska, California and Washington with respect to potential tort liability of local governments for earthquake-related injuries and damages since the publication of the earlier report. In addition, an analysis of the local government tort liability system of the state of Utah replaces that of New York based on the following considerations: (1) the need to correlate the results of written surveys and on-site interviews with the status of potential local government tort liability for earthquake-related hazards; (2) Utah's significantly greater exposure to earthquake-related hazards than that of New York; and (3) the developments in Utah's local government tort liability law in the intervening 10 years. Finally, this background report includes pertinent portions of the earlier report and serves as a replacement for the earlier work.

The author of this background report is heavily indebted to Professor Schwartz's pioneering work and that of John G. Evans (ABAG's former Legal Counsel) and wishes to express his gratitude to those individuals.

II. OVERVIEW OF LOCAL GOVERNMENT TORT LIABILITY

A. History and Background

Torts is the area of the American legal system under which an entity is held responsible for damages to property and injuries to persons resulting from the entity's actions. Usually, the entity's action which caused the harm must fall below acceptable norms before tort liability is imposed. In such cases, the entity is said to be negligent. In certain limited circumstances not germane to this outline, an entity which engages in special activities can be held responsible (i.e., held liable in tort) for damages and injuries without a formal determination that its activities were negligent.

The American tort system also recognizes certain immunities which unqualifiedly prevent the imposition of liability regardless of whether the entity's actions were negligent or non-negligent. Sovereign immunity, derived from the English legal system, affords the federal and state governments immunity from tort liability and has been extended to also cover certain activities of municipal governments.

Sovereign immunity is based on the notions that (1) the "King can do no wrong," and (2) the lawmaker cannot be prosecuted under laws created by it. Neither of these notions appears to have a place in modern American polity. However, the doctrine of sovereign immunity can be supported by other considerations.

First, the American tripartite system of government requires that each coordinate branch of government accords the others due deference where the others are acting in areas which are central to such branches' powers. Otherwise, the separation and independence of the legislative, executive and judicial branches of government are threatened. Obviously, excesses and gray areas exist. The doctrine of sovereign immunity, in some cases constraining, and in others permitting, judicial review of certain government activities, acts to curb such excesses and to define the boundaries of activities essential to each branch of government.

Second, as a corollary to the foregoing, the doctrine of sovereign immunity reflects the judiciary's recognition of its own limitations. Certain activities of coordinate branches of government result from the utilization of resources not available to the judiciary and reflect decisions the judiciary is not suited to making.

The application of the doctrine of sovereign immunity to municipal, or local, governments is complicated by two factors. First, it may be argued that municipalities do not have "sovereign" status under a republican form of government. Therefore, any sovereign immunity accorded local government is derived from, and subject to legislative control by, the state government. Second, municipalities have historically performed both traditional "governmental" functions and nontraditional "proprietary" functions which were, or are, also performed by private entities. One can argue that sovereign immunity only applies to traditional governmental functions and not to "proprietary" functions.

In American jurisprudence, the doctrine of sovereign immunity has evolved from an absolute bar to all tort liability into systems of immunities, privileges and liabilities which differ among the federal, state and local governments.

By 1946, the United States had established a means by which an aggrieved individual could bring some tort claims against the federal government. By the mid-1970's, most states had, by legislative or judicial means, abolished absolute sovereign immunity for themselves and municipalities. States either (1) make themselves and municipalities generally liable, or (2) create specific exceptions to sovereign immunity.

In either case, most states effectively retain immunity for their and a municipality's exercise of a "discretionary function." Although the scope of the discretionary immunity differs from jurisdiction to jurisdiction, its premise lies in the separation of powers and judicial restraint arguments articulated above. If the governmental activity falls within the areas to which the judiciary must defer, the activity is characterized as "discretionary" to that branch of government, and consequently immune. Absolute sovereign immunity has essentially been converted into a limited discretionary function immunity more in keeping with modern American polity.

For example, a city council's decision to enact a law requiring landowners to disclose geologic and soils conditions prior to selling the property or building on it would be immune as a discretionary function. The city council's decision not to enforce the ordinance at all would probably also be similarly immune. The city manager's decision to waive the requirement may or may not be immune as a discretionary function depending on the language of the ordinance, the factors used to make the decision, and the state. The clerk who issues a building permit without requiring the disclosure document is not immune under the discretionary function theory.

Various state courts have developed shorthand methods of analysis to distinguish between discretionary and non-discretionary functions. All jurisdictions have rejected the semantic argument based on the literal, dictionary meaning of "discretionary".

Some jurisdictions base the distinction on whether the allegedly tortious act consists of a planning decision, or is one which merely implements a planning decision (operational). The factors which influence the decision in question are critical to whether it is characterized as "planning" or "operational".

Some state tort systems also retain the distinction between proprietary and governmental functions as a means of determining whether specific municipal activities are immune from tort claims. Historically, this distinction has been difficult to apply with consistency. In part, the inconsistency results from the incongruity between two categories and the underlying policy of governmental tort immunity. In part, it is caused by the changing roles of the public and private sectors which blur or change the boundaries between the proprietary (private) and the governmental (public).

A third test for determining whether a municipality is immune is called the public duty rule. In general, to determine whether a tort has been committed, a formalistic analysis requires that (1) the entity doing the harm (tortfeasor) owes a "duty" to the victim, (2) the tortfeasor violates the duty, (3) the violation harms the victim, and (4) in violating the duty, the tortfeasor's behavior falls below acceptable norms. The first requirement is addressed by the public duty rule. Simply stated, if the alleged governmental tort is based on a duty which the government owes to everyone, then the first requirement is not met. The injured party must show a duty owed to that party in particular, or to a circumscribed class of persons, of which the injured party is a member. If the duty exists, courts often characterize it as a "special relationship" between the injured party and the governmental entity.

All the immunities described above, but in particular, the exposition of the public duty doctrine in the various state courts reflect the tension between the policies underlying governmental immunity: allowing government to effectively govern and compensating the innocent victims of governmental negligence or wrongdoing.

B. Alaska

1. Sovereign Immunity

The Alaska Tort Claims Act (the "Alaska Act") abolishes sovereign immunity of, and authorizes tort claims against, local governments. Alaska Stat. Sec. 09.65.070. It does the same with respect to the state government. Alaska Stat. Sec. 09.50.250. Several provisions of the state liability statute parallel provisions in the local government liability statute. Cases interpreting the state statutory sections are considered in this background report for their potential value in interpreting the local government statute.

2. Discretionary Immunity

The Alaska Act contains a number of specific immunities from tort liability for local government. These will be examined as the need arises in subsequent sections of this background report. The Act also immunizes local governments against tort liability "based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty by a municipality or its agents, officers, or employees, whether or not the discretion involved is abused" Alaska Stat. Sec. 09.65.070(d)(2). Thus, in Alaska, the discretionary immunity has a statutory basis. The scope of the discretionary immunity has been the subject of significant litigation and judicial interpretation.

In Wainscott v. State, 642 P.2d 1355 (Alaska, 1982), the court recites the purposes of the discretionary immunity. First, the immunity is perceived as a necessary corollary to the separation of powers. *Id.* at 1356 and cases cited therein. Second, the discretionary function immunity recognizes the court's inability to match the executive and legislative branches' investigatory and fact-finding powers and the judiciary's inexperience in balancing the types of factors that enter into the decisions of those branches of government. *Ibid.*

(a) Semantic Test

In light of these purposes, Wainscott rejects the argument that all government actions requiring the exercise of discretion fall within the immunity. Wainscott recognizes that "[E]ven the most ministerial of tasks involves some degree of discretion." *Ibid.* However, not all acts requiring the exercise of "some" discretion are immune because not all such acts raise the issue of separation of powers nor require judicial deference to the coordinate branch's special skills.

(b) Planning/Operational Test

Alaska adopts the planning/operational test to determine when the discretionary immunity applies. "Decisions that rise to the level of planning or policy-making are considered discretionary acts which do not give rise to tort liability, while decisions that are merely

operational in nature are not considered to be discretionary acts and therefore are not immune from liability." Carlson v. State, 598 P.2d 969, 972 (Alaska, 1979). Since the

purpose of the discretionary immunity is to maintain the separation of powers and the proper deference to the legislative and executive branches of government, a particular governmental action or decision falling in the discretionary immunity must "involve broad basic policy decisions which come within the 'planning' category of decisions which are expressly entrusted to a coordinate branch of government." State v. I'Anson, 529 P.2d 188 (Alaska, 1974). Where the policymaker has the opportunity to base its decision on policy, planning, or political considerations, or where the decision involves the setting of priorities in the use of governmental resources, the discretionary immunity is usually available. Wainscott at 1357.

The Alaska courts have recognized that the planning/operational test is inexact. However, the same courts defend the use of this test insofar as it "isolates those decisions sufficiently sensitive so as to justify judicial abstention . . . [and] protect those decisions worthy of protection without extending the cloak of immunity to an unwise extent." *Id* at 1355, 1356.

3. Purely Economic Damages

The Alaska Supreme Court has held that generally, a plaintiff may not recover in tort for purely economic damages (i.e., economic damages such as lost profits which do not arise out of injury to person or damage to property). State for Use of Smith v. Tyonek Timber, Inc., 680 P.2d 1148 (Alaska, 1984). In 1976, H&S Construction, Inc. (H&S) was the general contractor on a construction project to build an addition to a school house in Tyonek. The plaintiff, Fred L. Smith (Smith), was a concrete subcontractor to H&S. Tyonek Timber, Inc. (Tyonek) supplied defective concrete to the project. During the course of construction, Smith used the Tyonek concrete. Smith incurred costs in performing remedial work necessitated by the defective concrete. There was no direct contract between Smith and Tyonek for the concrete.

In Smith's suit, he alleged Tyonek was negligent in furnishing unfit concrete and that H&S was negligent in failing to adequately inspect the defective concrete. Under both claims, Smith sought recovery of his costs in doing the remedial work (purely economic loss). In the suit against Tyonek, Smith also sought recovery under a strict products liability theory. The court rejected all of Smith's arguments and reaffirmed its position that purely economic losses can only be recovered under a contract claim.

In 1987, the Alaska Supreme Court created an exception to the rule of no recovery for purely economic damages. Mattingly v. Sheldon Jackson College, 743 P.2d 356 (Alaska 1987). In Mattingly, employees of the college excavated and braced a trench exposing a drain pipe. The college had contracted with the plaintiff to clean the pipe. Three employees of the plaintiff were injured when the trench collapsed. The court found that the plaintiff was a member of a small class of entities who would almost certainly suffer economic harm as a result of defendant's negligence. Consequently, the court held that the plaintiff could recover purely economic damages proved at trial.

Neither Tyonek nor Mattingly involve a local governmental or state defendant. However, the courts' rationales for the decisions appear to be equally applicable to state and local governments in Alaska.

C. California

1. Sovereign Immunity

In California, tort claims against local governments are governed by the California Tort Claims Act (the "California Act"). Cal. Govt. C. Secs. 810 et seq.. The stated statutory scheme of the Act is the abolishment of governmental tort liability "except as otherwise provided by statute." Cal. Govt. C. Sec. 815. These tort liabilities may be created by either the California Act or other statutes. Such statutory liability "is subject to any immunity of the public entity provided by statute . . . and is subject to any defenses that would be available to the public entity as if it were a private person." Cal. Govt. C. Sec. 815(2).

A judicial tension between "conservative" and "liberal" approaches to the California Act exists. Under the "conservative" approach, "sovereign immunity is the rule in California; governmental liability is limited to exceptions specifically set forth by statute." Cochran v. Herzog Engraving Co., 155 Cal. App. 3d 405, 409; 205 Cal. Rptr. 1, 3 (1984). The "conservative" approach interprets statutory immunities in an expansive fashion.

Another line of California cases (the "liberal" approach) holds that under the Act, liability is the rule and immunity the exception. Lopez v. Southern California Rapid Transit District, 40 Cal. 3d 780; 221 Cal. Rptr. 840 (1985); Potter v. City of Oceanside, 114 Cal. App. 3d 564; 170 Cal. Rptr. 753 (1981).

The two lines of judicial thought may reflect the statutory provision that although a public entity is immune subject only to specific statutory liabilities, its employees are liable to the same extent as private persons, except as otherwise provided by statute. Cal. Govt. C. Sec. 820(a). In California, the legal doctrine of respondent superior makes an employer liable for the negligence of its employee where the employee is acting within the scope of employment. Thus, with respect to activities conducted by public employees, this doctrine effectively exposes a public entity to the same tort liability as private persons, subject only to the defenses available to such private persons and the specific immunities afforded public entities by statute.

2. Discretionary Immunity

California recognizes the discretionary immunity in the California Act which states that "a public employee is not liable for an injury resulting from his act or omission where the act or omission was the result of the exercise of the discretion vested in him, whether or not such discretion be abused." Cal. Govt. C. Sec. 820.2. This immunity is transferred to the public entity under Cal. Govt. C. Sec. 815.2, which allows such public entity to be shielded by immunities available to its employees.

(a) Semantic Test

Recent California cases continue to reject a "semantic" interpretation of the discretionary immunity. Lopez v. Southern California Rapid Transit, 49 Cal. 3d 795, 221 Cal. Rptr. 840 (1985); Johnson v. State of California, 69 Cal. 2d 782, 73 Cal. Rptr. 240 (1968). In Lopez, a passenger was injured on a publicly operated bus. The bus operator took no action when the altercation, which eventually escalated into a physical fight, causing injury to the plaintiff, first arose. The court held that discretionary immunity is

reserved for "basic policy decisions" which have been committed to coordinate branches of government." Lopez at 848. The mere ability to assert that "[a public entity employee] might have alternative courses of action from which to choose and this choice might involve a certain degree of judgment, does not elevate the [public employee's] decision to the level of 'basic policy'." Lopez at 849. California has rejected the "semantic" approach in favor of the "planning/operational" test also used by Alaska.

(b) Planning/Operational Test

California's planning/operational distinction first focuses on the individual making the decision. For the immunity to apply, the individual making the decision must be legally vested with the appropriate discretion. Thompson v. County of Alameda, 27 Cal. 3d 741, 1674 Cal. Rptr. 70 (1980). Further development of the judicial definition of "basic policy decisions" remains unfocused. See California Government Tort Liability Practice, Supp., Section 2.54-2.63 (1987). Thus, the position of the decision-maker in the governmental hierarchy is the major stable criterion of the planning/operational test.

3. Public Duty Doctrine

(a) Special Relationship

The California courts recognize a non-statutory source of liability: a finding of a "special relationship" under the public duty doctrine. See Tarasoff v. Regents of University of California, 17 Cal. 3d 425, 131 Cal. Rptr. 14 (1976); Mann v. State of California, 70 Cal. App. 3d 773, 139 Cal. Rptr. 82 (1977); Williams v. State of California, 34 Cal. 3d 18, 192 Cal. Rptr. 233 (1983).

A "special relationship" may be based on either of two principles. First, the relationship between the defendant and plaintiff may, as a matter of public policy, create a duty between them, violation of which is basis for a tort action. In Tarasoff, a psychotherapist employed by the University of California was aware of a patient's enmity towards a specific individual but took no action to warn that individual when the patient threatened to harm that individual. The court found a special duty between the psychotherapist and the third party.

Second, specific actions by the defendant may cause an injured party reasonably to rely on the actions of the defendant which are ultimately executed in a negligent fashion. In Mann, a highway patrol officer took no action to ensure the safety of a disabled vehicle on a freeway. The plaintiff/driver was injured after the officer left the scene.

(b) Mandatory Duty

A public entity is liable for its failure to comply with a "mandatory duty imposed by an enactment that is designed to protect against a risk of a particular kind of injury unless the public entity has exercised reasonable diligence to discharge the duty." Cal. Govt. C. Sec. 815.6. Application of this rule rests first on a finding that a particular enactment imposes a "mandatory duty" on the public entity. The finding of a mandatory duty depends on the court's interpretation of the overall legislative intent of the enactment rather than the presence of compulsory language such as "shall." Nunn v. State, 35 Cal. 3d 616, 200 Cal. Rptr. 440 (1984).

Second, the harm which befalls the plaintiff must be of the type which the enactment is intended to prevent and the plaintiff must fall within the class of persons which the enactment is designed to protect. Shelton v. City of Westminster, 138 Cal. App. 3d 615, 188 Cal. Rptr. 205 (1982) (parents of murder victim not within class of persons protected under statute requiring city to provide records to assist in identification of murder victim). Fredette v. City of Long Beach, 187 Cal. App. 3d 122, 231 Cal. Rptr. 598 (1986) (plaintiff injured in dive from pier not within class of persons protected by building code requirement for barricades on construction site).

Third, the failure of the entity to comply with its mandatory duty must be the "proximate cause" of the injuries or damages suffered. State v. Superior Court, 150 Cal. App. 3d 848, 197 Cal. Rptr. 914 (1984) (real estate commissioner's failure to take action against realtor could not have been proximate cause of fraud victim's damages).

Fourth, the mandatory duty rule defeats a statutory immunity only when the immunity is limited to discretionary acts of the public entity. Where the statutory immunity is for both ministerial and discretionary acts, the mandatory duty rule does not overcome the immunity. Grenell v. City of Hermosa Beach, 103 Cal. App. 3d 864, 163 Cal. Rptr. 315 (1980) (city's and employee's unqualified immunity for misrepresentation not abrogated by statute which mandated the issuance of a land use report which proved to be erroneous and which caused financial harm to plaintiff).

Fifth, it has also been held that the statutory immunity for negligent inspection of private property prevails over the mandatory duty rule because the court recognized that otherwise "municipalities would be exposed to unwarranted and unsupportable risks of liability" without such immunity. Cochran (city's mandatory duty to abate hazardous conditions does not defeat city's immunity for negligent inspection of building where fire department failed to discover magnesium on premises which led to death of worker on premises).

4. Emotional Distress

One significant advance in California tort law is the recognition of a plaintiff's right to recover under a "pure" claim of negligent infliction of emotional distress. Molien v. Kaiser Foundation Hospitals, 27 Cal. 3d 916, 167 Cal. Rptr. 831 (1980). Prior California law required that a plaintiff must suffer some "physical injury" as a proximate result of the defendant's negligent act in order to recover damages for emotional distress. Dillon v. Legg, 68 Cal. 2d 728, 69 Cal. Rptr. 72 (1968). The courts eventually recognized "gastric disturbance" as sufficient "physical injury" to sustain recovery for emotional distress. Krouse v. Graham, 19 Cal. 3d 59, 137 Cal. Rptr. 863 (1977). Such attenuated and strained reasoning led the California Supreme Court in Molien to remove the physical injury requirement. In Molien, the plaintiff's wife was misdiagnosed as having syphilis. The plaintiff alleged damages of, among others, emotional distress, without evidence of any physical manifestation of such distress. The Court permitted the claim to stand. There is nothing in the reasoning of Molien that would prevent its application in a case brought against a public entity or its employees.

5. Purely Economic Damage

Traditionally, purely economic damages have not been recoverable against a defendant in a tort claim. In California, a line of cases holds that purely economic damages may be

recoverable against a defendant for its negligence where a "special relationship" exists. Biakanja v. Irving, 49 Cal. 2d 647, 320 P.2d 16 (1958) (a notary public was held liable for negligently preparing a will).

The Biakanja rule was first given application outside the special circumstances of that case in J'Aire Corp. v. Gregory, 24 Cal. 3d 799, 157 Cal. Rptr. 407 (1979). In J'Aire, the California Supreme Court held that a construction contractor may be held liable in tort for business losses suffered by the lessee of the premises on which the contractor was working when the contractor negligently failed to timely complete the project. In that case, the lessee alleged lost profits as a result of the delay. The holding was premised on the finding of a "special relationship" as determined under the following criteria: (1) the extent to which the transaction negligently performed was intended to affect the plaintiff; (2) the foreseeability of harm to the plaintiff; (3) the degree of certainty that the plaintiff would suffer injury; (4) the closeness of the connection between defendant's conduct and the injuries suffered; (5) the moral blame attached to the defendant's conduct; and (6) the policy of preventing future harm. Nothing in J'Aire suggests that it would not be extended to a public entity or its employees under the appropriate circumstances.

D. Utah

1. Sovereign Immunity

Utah's Governmental Immunity Act (the "Utah Act") provides that "all governmental entities are immune from suit for any injury which results from the exercise of a governmental function" U.C.A. Sec. 63-30-3. Specific statutory exceptions to the immunity rule are provided in other sections of the Utah Act. It appears that Utah retains sovereign immunity as the basic principle of governmental tort liability for governmental functions. However, the statutory liabilities are broad.

2. Governmental/Proprietary

For several years the Utah courts assumed that the Utah Act imported the governmental/proprietary test traditionally used in municipal liability cases to determine whether an activity was governmental. The Utah Supreme Court changed this test. In holding a municipality liable for personal injury suffered on a golf course owned, operated and maintained by the municipality, the Utah Supreme Court effectively abolished the use of the traditional governmental/proprietary function test as the criteria by which the Utah Act was to be applied. Standiford v. Salt Lake City Corporation, 605 P.2d 1230 (Utah, 1980). The court extensively reviewed the inconsistent decisions generated by application of the test and its shortcomings as a rational tool of legal analysis. It rejected the premise that the reference to "governmental" function in the Act necessitates the importation of the traditional governmental/proprietary distinction. Standiford held that "the test for determining governmental immunity is whether the activity under consideration is of such a unique nature that it can only be performed by a governmental agency or that it is essential to the core of governmental activity." *Ibid* at 1236.

In the 1987 session, the Utah Legislature amended the Utah Act, explicitly defining "governmental function" as ". . . any act, failure to act, operation, function, or undertaking of a governmental entity whether or not the act, failure to act, operation,

function, or undertaking is characterized as governmental, proprietary, a core governmental function, unique to government, undertaken in a dual capacity, essential to or not essential to a government or governmental function or could be performed by private enterprise or private persons . . . A 'governmental function' may be performed by any department, agency, employee, agent, or officer of a governmental entity". U.C.A. Section 60.30.2(4).

With the exception noted below, the amendment straightforwardly overturns the Standiford test and accords immunity to all governmental activities except for statutory waivers.

The inclusion of acts (or omissions) which could be characterized as "essential to or not essential to a . . . governmental function" in the definition of a "governmental function" seems paradoxical. It appears that the Legislature is trying to prevent a claimant from singling out a particular act in a sequence of actions, and characterizing it as "non-governmental."

3. Discretionary Immunity

The "governmental function" immunity is not absolute. The Act sets forth specific exceptions to the governmental function immunity. The most important of these exceptions is generalized liability for "injury proximately caused by a negligent act or omission of an employee committed within the scope of employment." The legal doctrine of respondeat superior then imposes liability on the public entity for the negligence of its employees.

This liability, in turn, is subject to twelve listed exceptions, including one for any injury which "arises out of the exercise or performance or the failure to exercise or perform a discretionary function, whether or not the discretion is abused." U.C.A Sec. 63-30-10(1)(a). Thus, Utah adopts the discretionary function immunity by statute.

(a) Semantic Test

The semantic test for determining whether the discretionary function immunity exists has been rejected by Utah. Carroll v. State Road Commission, 496 P.2d 888 (Utah, 1972). Instead, "the exception to the statutory waiver . . . was intended to shield those governmental acts and decisions impacting on a large number of the people in a myriad of unforeseeable ways from individual and class legal actions, the continual threat of which makes public administration all but impossible."

(b) Planning/Operational Test

Utah utilizes the planning/operational test in determining whether the discretionary immunity applies to any specific instance. The governmental action which allegedly caused the injury or damage is immune if it involves decisions made at the "basic plan-making level". Bigelow v. Ingersoll, 618 P.2d 50 (Utah 1980). (Court held design construction and maintenance of traffic light not a discretionary function.)

E. Washington

1. Sovereign Immunity

The Washington Tort Claims Act (the "Washington Act") provides that all political subdivisions and municipal corporations of the state are liable for damages for their, or their employees', tortious conduct to the same extent as if they were a private person or a corporation. R. C. W. Sec. 4.92.090. Thus, sovereign immunity in the State of Washington is abolished without any statutory exceptions.

2. Discretionary Immunity

The discretionary function immunity was created by the judiciary as an exception to the rule of general liability of local governments. Evangelical United Brethren v. State, 67 Wn. 2d 246, 407 P.2d 440 (1965). To avail itself of the immunity, a local government must meet Evangelical's four-part test for discretionary immunity. The challenged act must (1) involve a basic governmental policy, program or objective; (2) be essential to the realization or accomplishment of same; (3) require the exercise of basic policy evaluation, judgment and expertise; and (4) be performed by the government agency having the requisite authority and duty to perform the act.

In addition, the municipality must demonstrate that it actually exercised its "discretion" (as defined in Evangelical) in the action, or inaction, causing the harm. King v. Seattle, 84 Wn. 2d 239, 525 P.2d 228 (1974). Finally, Washington appears to give some weight to the position of decision maker in the governmental hierarchy in assessing whether the decision was truly "discretionary." Chambers-Castanas v. King County, 100 Wn. 2d 275, 669 P.2d 451 (1983).

3. Public Duty Doctrine

The mere abolition of sovereign immunity does not settle the question of municipal liability. The Act only makes municipalities liable as private entities and does not itself create liability beyond that imposed by Washington's common law tort jurisprudence. Edgar v. State, 92 Wn. 2d 217, 595 P.2d 534 (1979).

If the enabling statute for the governmental action states a clear legislative intent to protect an identifiable class of persons and a member of the class is injured, then a special duty on which liability can be based exists. Baerlein v. State, 92 Wn. 2d 229, 595 P.2d 930 (1979). A general duty to regulate private sector activity for the benefit of the general public fails the test. Baerlein. A housing regulation listing "occupants" of a building as a protected class meets the test. Halvorson v. Dahl, 89 Wn. 2d 673, 574 P.2d 1190 (1978).

However, the designation "occupants" used in a building code does not create a protected class. Pierce v. Spokane County, 730 P.2d 82 (Wash. App. 1986). In Pierce, the city failed to inspect the file for a single family home during construction. The plaintiffs bought the home from the builder and foundation problems developed. The court held that the city owed no duty to the occupants despite language in the building code statute stating that its purposes included protection of "the occupants or users of buildings and structures." Relying on J&B Development Company v. King, 100 Wn. 2d 229, 699 P.2d 468 (1983), the Pierce court held that under building permit and inspection ordinance, using such language, the protected class of person is builders.

If a statute obligates a local entity to abate a specific known and dangerous condition, failure to do so will create a special duty or relationship between a plaintiff and a defendant. Campbell v. City of Bellevue, 85 Wn. 2d 1, 530 P.2d 234 (1975). An employee's failure to turn off current to a circuit shorting in a creek bed made the public entity employee, and therefore the public entity, liable for the electrocution of a neighbor. Safety regulations required the employee to shut off the electricity.

If an injured party relies on expressed or implied assurances by a governmental agency with whom the party had direct contact, the test is met. A developer's direct contact with city employees in obtaining a building permit and an inspection of a building foundation established a "special relationship" upon which to sustain a claim for damages when it was discovered that the building failed to meet regulatory setback requirements. J&B Development.

4. Purely Economic Damages

Washington is one of the first states to recognize a tort claimant's right to recovery for purely economic damages. Berg v. General Motors Corp., 87 Wn. 2d 584, 555 P.2d 818 (1976). The Washington Supreme Court decided there was no compelling policy reason to preclude an injured party from recovering damages solely for economic loss. The court did not perceive any increased hazard to manufacturers from indiscriminate lawsuits nor a significant expansion of manufacturers' liability. Moreover, the court did find compelling the fact that economic loss, in and of itself, may be just as significant to the injured party as damages recoverable under traditional tort theories. The plaintiff in J&B Development was allowed to proceed with a claim against the county for economic losses (lost rent and additional construction costs).

F. Summary

Alaska abolishes sovereign immunity but provides specific immunities, including the discretionary function immunity, by statute. Generally, the state adheres to the planning/operational test in determining whether the discretionary function immunity is available. The Alaska courts recognize tort recovery of purely economic damages in cases of "particular foreseeability".

California retains sovereign immunity but establishes specific liabilities by statute, including liability for the negligence of public employees. However, the statute also provides a discretionary function immunity for employee negligence. California employs the planning/operational test for the discretionary function immunity with particular reliance on the status of the decision maker. California courts have also employed the public duty doctrine both in its traditional form and as a "mandatory duty rule" to create non-statutory liability. Plaintiff can recover emotional distress damages (under liberal burden of proof rules) and purely economic damages.

Utah retains sovereign immunity subject to statutory liabilities. Uncertainty over the scope of the immunity which focused on whether an act was, or was not, "governmental" has been settled by recent legislation. The statutory liability for the negligence of public employees is ameliorated by the discretionary function immunity which is defined by the planning/operational test.

Washington abolishes sovereign immunity without statutory exception. The courts have established a discretionary function immunity and have applied the public duty doctrine to determine whether any tort was committed in the first instance. The courts permit recovery of purely economic damages in tort.

III. ANALYSIS OF GENERAL CIRCUMSTANCES FOR LIABILITY

A. Earthquake Warnings - Issuance and Non-Issuance

1. Alaska

The Alaska Act does not contain an explicit immunity for the issuance of an earthquake warning by the state or by local governments. However, local governments are immune for damages "based upon the exercise or performance of a duty or function upon the request of, or by the terms of an agreement or contract with, the state to meet emergency public safety requirements." Alaska Stat. Sec. 09.65.070(d). Absent such a request or agreement between the state and local government, the local government must then seek immunity for its actions in issuing or failing to issue an earthquake warning under the discretionary function immunity.

If the decision to issue or not to issue an earthquake warning could have, or should have, been based on policy, planning or political factors, or on the allocation of resources, then that decision would be immune. Waincott at 1357. Whether the local government actually utilizes such factors in reaching its decision does not affect the outcome. Industrial Indemnity Co. v. State, 669 P.2d 561 (Alaska, 1983) (the state failed to install handrails which allegedly resulted in bodily injury). In part, the decision in Industrial Indemnity seems to classify the failure to exercise a discretionary function which is potentially available to the public agency as "an abuse" of that function. Alaska Stat. Sec. 09.50.250(1).

In Waincott, plaintiff challenged the state's Department of Transportation decision not to install sequential traffic control devices at an intersection where the plaintiff suffered injuries and damages. Each of the public agencies in Waincott provided the court with documentation on the factors which went into, or could have gone into, their decision-making process. The court accepted the following as planning, policy or political criteria meeting the planning/operational test: long-term development of traffic improvements, traffic flow analysis, allocation of scarce resources among different types of transportation needs, and setting priorities for similar projects within budgetary constraints.

A local government could effectively raise the discretionary function immunity for its earthquake warning system if it could document that the decision to issue or not issue a warning was actually or theoretically based on similar criteria. These criteria might include availability of emergency response or evacuation resources and balancing the social impacts of an evacuation.

2. California

Within the California Office of Emergency Services, a program exists to evaluate earthquake predictions and warnings and to recommend to the governor whether an earthquake warning should be issued. The state, its agencies and employees are immune from liability "for any injury resulting from the issuance or non-issuance of a warning ... or for any acts or omissions in fact-gathering, evaluation or other activities leading

up to the issuance or non-issuance of a[n earthquake] warning." Cal. Govt. C. Sec. 955.1(b). Further, "public entities and public employees may, on the basis of a warning issued pursuant to Subdivision (b), take, or fail or refuse to take, any action or execute or fail or refuse to execute an earthquake . . . prediction response plan with relation to the warning which is otherwise authorized by law. In taking or failing or refusing to take such action, neither public entities nor public employees shall be liable for any injuries caused thereby." Cal. Govt. C. Sec. 955.1(c).

A local government is therefore immune for its transmittal or refusal to transmit an earthquake warning from the state. However, a local government's independent action to issue an earthquake warning, or failure to issue an earthquake warning, would not be immune under this provision.

Assuming that a local government entity, on its own initiative, issued, or failed to issue, an earthquake warning and injuries proximately resulted from such action, its primary defense to a tort claim would be the discretionary function immunity. The ability to weigh the benefits of issuing a warning (removal of citizens from high risk areas and shut-down of earthquake-sensitive activities) versus the disadvantages (e.g., panic reactions and disruption of normal activities) probably qualifies the decision as "planning", if the decision is made by an individual or entity have the requisite authority. Basing the decision on the "scientific" validity of the warning may very well make it "operational." See Bohrer v. County of San Diego, 104 Cal. 3d 155, 103 Cal. Rptr. 419 (1980).

3. Utah

Under the Utah Act, as revised in 1987, it seems certain that a public entity is immune for the issuance or failure to issue an earthquake warning when it falls within the description of a "governmental function." U.C.A. Sections 63-30-2(4) and 63-30-3. However, the public entity's immunity is waived for injury caused by the negligent act or omission of its employee with twelve (12) exceptions. The only relevant exception is for discretionary functions. U.C.A. 63-30.10(1)(a). This probably exposes the public entity to liability for its employee's negligent implementation of the earthquake warning system.

Utah applies the planning/operational criteria for determining whether the complaint of governmental action falls within the discretionary immunity. The availability of the immunity may depend on the governmental agency's ability to document "basic planning" criteria utilized in its decision to issue or not issue an earthquake warning.

In addition, a Utah court has held that "[g]overnmental acts and decisions impacting a large number of people in myriad unforeseeable ways" are discretionary, whereas "one-to-one dealings" between the governmental agency and a member of the public does not so qualify. Frank v. State, 613 P.2d 517 (Utah, 1980). The Frank court refused to grant immunity to the state or its psychologist-employee when the psychologist released a patient who subsequently committed suicide. These criteria in the planning/operational analysis of the discretionary immunity may be critical in determining whether the discretionary immunity is available for a local government's decision regarding the issuance of an earthquake warning.

4. Washington

An earthquake warning program would very likely meet the first three of Evangelical's four-pronged tests. However, the fourth requires that the act be performed by a public

entity with the requisite power and duty to so act. Therefore, a specific enactment empowering local governments to issue an earthquake warning may be necessary to provide discretionary function immunity.

However, even if the discretionary immunity is unavailable because of the lack of statutory authorization, a tort claim will probably fail to meet the public duty test. Without a statutory basis on which to assert a special duty, an injured party must show detrimental reliance on assurances from the public agency obtained in direct, one-to-one contact. Such a factual showing would be difficult to make solely on the basis of the issuance or non-issuance of an earthquake warning.

5. Summary

Alaska immunizes local governments for emergency response activities undertaken pursuant to a request or agreement with the state. Absent such prerequisite, the local government may be able to effectively raise the discretionary function immunity if it can prove that its decision on whether to issue an earthquake warning considered planning, policy and political criteria as set forth in Wainscott.

Local governments in California operate under a system substantially similar to Alaska's. The major difference is the existence of an explicit earthquake warning statute immunizing the state and local governments acting under the aegis of the state. Discretionary function immunity is probably available for earthquake warning/response activities not conducted under state aegis.

In Utah, the issuance of an earthquake warning is probably immune either under the provisions of the Utah Act or the discretionary function immunity.

In Washington, the discretionary function immunity is the only defense to liability for the issuance of a warning.

B. Injuries and Damages Caused by Private Property – Building Permits and Inspections

1. Alaska

In 1977, the Alaska legislature precluded municipal liability for actions based on the municipality's inspection of private property to detect violations of statutes, regulations and ordinances, or for hazards to health or safety which may exist on such property after an inspection. Alaska Stat. Sec. 09.65.070(d)(1). The Alaska Supreme Court upheld the constitutionality of the 1977 amendments. Wilson v. Municipality of Anchorage, 669 P. 2d 569 (Alaska, 1983). In Wilson, a construction worker was injured when he touched temporary electrical wiring at the job site. He alleged the city was negligent in failing to detect the defective wiring.

The Alaska courts have also held that the issuance of a building permit was immune as a discretionary function. Wilcox Associates v. Fairbanks Northstar Borough, 603 P.2d 903 (Alaska, 1979).

2. California

The California Act specifically immunizes a public entity in California for its action or inaction in connection with the issuance of a permit, inspections of private property, failure to inspect to private property, and the failure to enforce any law. Cal. Govt. C. Secs. 818.4, 821.2; 818.6, 821.4; 820.4. However, as noted above, a public entity is liable for its failure to discharge a "mandatory duty" under certain circumstances.

In Morris v. County of Marin, 18 Cal. 3d 901, 136 Cal. Rptr. 251 (1977), the California Supreme Court held that the immunity for the issuance of a permit or the failure to enforce statutory provisions governing the issuance of a permit are available only if the public entity complied with all mandatory duties imposed on it in the course of the permit issuance process. Therefore, a county which issues a building permit without requiring evidence of worker's compensation insurance in violation of a mandatory duty to do so is liable for damages suffered by an employee injured on the construction site. Subsequent case law has limited the mandatory duty rule in this context to permit issuance activities. It is not available in cases of alleged violations of such a duty during a building inspection. Cochran; see also Grenell.

In addition, legislative action has partially vitiated the Morris rule. Neither a city nor a county nor any employee has any responsibility for determining "the truth or accuracy" of declarations made in a building permit and "no monetary liability on the part of, and no cause of action for damages against them shall arise from their failure to verify the truth or accuracy of the declarations." Cal. H.&S. C. Sec. 19826. However, this provision does not immunize the public entity nor its employees for their failure to procure such declarations, if there is a mandatory duty to do so.

3. Utah

As noted above, the Utah Act waives immunity for injury proximately caused by a negligent act or omission of an employee. U.C.A. Sec. 63-30-10. However, the immunity is retained if the injury "arises out of the issuance, denial, suspension or revocation of, or by the failure or refusal to issue, deny, suspend or revoke any permit, license, certificate, approval, order or similar authorization; or arises out of a failure to make an inspection, or by reason of making an inadequate or negligent inspection of any property." U.C.A. Sec. 63-30-10(c) and (d). Under the plain language of the statute, a public entity in Utah may have some liability exposure for its failure to enforce a building statute or code if such failure to enforce is not related to the issuance, denial, suspension or revocation of a permit. For example, certain code violations may not be legally viable bases on which to revoke or suspend a permit. Failure to force correction of such a violation and subsequent injury to an occupant of the building may be the basis for a tort claim. The public entity then must rest its defense on the discretionary immunity.

The discretionary immunity may not operate to preclude liability. If the failure to enforce a requirement occurs where the governmental action affects only the members of a circumscribed class of persons intended to be protected under the ordinance, the court may rule such actions to be "operational" and therefore not within the discretionary immunity. See Frank.

4. Washington

All Washington cases on the issuance of building permits have concerned the public duty doctrine. None have raised the issue of discretionary immunity. Some policy-based permitting decisions (e.g., some types of zoning variances) may be able to satisfy the Evangelical test. However, no Washington plaintiff has tested the possibility. It is clear that building inspection activities would not qualify under Evangelical. The cases implicitly assume that the issuance of building permits is a non-discretionary act and then proceed to an analysis of whether a special duty exists between the local government and the injured party.

It seems well settled that a special duty will be found to exist between a permittee and the permitting public entity under any one of the three grounds for establishing such a duty. One interesting development is the expansion of parties able to recover against a municipality. The permittee can seek, and win, indemnification from the public entity which negligently issued the permit where the permittee is sued by a third party who suffers damage as the result of the defective permit. Radach v. Gunderson, 695 P.2d 128 (Wash. App. 1985).

In Radach, the city issued a permit to the Gundersons to build a home in violation of a setback requirement. The neighbors, the Radaches, protested but the city did not contact the Gundersons until six week later. The Gundersons applied for a zoning variance and were rejected. Nonetheless, the city did not revoke the building permit and advised the Gundersons to complete the house. The Radaches sued the Gundersons and the city to have the Gundersons' home moved to comply with the setback requirement. The court ordered the house be moved at the city's expense.

First, the court concluded that sufficient basis exists for imposing liability on the city regardless of whether the city owed a specific duty to the Radaches. *Id* at 131. Instead of a duty to the Radaches, the court found the city had a duty to the Gundersons (which it presumably breached). The city is therefore liable to indemnify the Gundersons despite the fact that the Gundersons themselves are "innocent" and owe the Radaches no remedy. *Id* at 132.

Radach might be dismissed as an anomaly. See Taylor v. Stevens County, 732 P.2d 517 (Wash. App. 1987).

It should also be noted that injured parties have successfully recovered purely economic damages for the negligent issuance of a building permit. Industrial Hydrolics v. City of Aberdeen, 619 P.2d 980 (Wash. App. 1980); J&B Development Company.

Until recently, Washington has had a broad basis for finding a special duty in building inspection cases. The approach accepted the assertion that building codes are intended to benefit a circumscribed class of persons, i.e., occupants, owner/builders and neighbors. See Halvorson, J&B Development, and Campbell.

Recently, the Washington courts have held that the "special relationship" established between the public entity and "building occupants" in a health and safety statute (Halvorson) does not require that such a relationship be established by similar words in a building code. See discussion of Pierce in Section II. E. 3 of this background report.

5. Summary

Alaska immunizes all building inspection activity both by statute and under caselaw defining the discretionary function immunity.

California immunizes all building inspection activities by statute. A narrow exception for the failure of a local government to comply with a mandatory duty during the permit issuance process has been created by the courts and was subsequently narrowed further by legislative action.

Utah clearly immunizes all but a very narrow range of building inspection activities from liability. The theoretical basis for liability resulting from negligent inspections has not been confirmed by court decisions.

The Washington courts have consistently found liability for building inspection activities so long as the injured party can establish a "special relationship" under Washington's public duty rule. An attempt to extend the scope of the public duty rule has apparently been confined to the facts of that case.

C. Injuries and Damages Caused by Public Property (Traditional Tort Analysis)

1. Alaska

Alaska abrogates sovereign immunity and does not provide any specific immunity for a public entity's design, ownership, maintenance or operation of any public facility. Alaska Stat. Sec. 09.65.070. Clearly the discretionary immunity cannot be applied to the operation and maintenance of the public facilities. State v. Abbott, 498 P.2d 712 (Alaska 1972). However, the discretionary function immunity has been raised with respect to a public entity's "design" of a public facility.

The pattern of decisions in Alaska indicates that the decision to build or not to build a particular facility is likely to be granted the discretionary function immunity as such decisions usually afford the decision maker the opportunity to weigh the economic, social and political impacts of decision to build or not build the facility in question. Waincott (decision to not install a sequential traffic control device was discretionary); Industrial Indemnity (decision to not install a guardrail was discretionary). This is true regardless of whether the public official actually utilized such criteria in the decision-making. Id at 567 and fn 11.

In cases where the decision has been made to build a facility, implementation of that decision, including decisions on the design and configuration of the facility, will not be afforded the discretionary function immunity. I'Anson; Japan Airlines Company, Ltd. v. State, 628 P.2d 934 (Alaska 1981); Johnson v. State, 636 2d 47 (Alaska 1981). The court has also rejected the argument that a decision to build which included a design of the facility cloaks the design under the discretionary function immunity. Johnson at 64-65. In Johnson, the State was granted an easement to maintain a paved road crossing a railroad spur. The state approved reconstruction of the road utilizing the original design. The court in Johnson bifurcated the decision to reconstruct and the state's alleged adoption of the original design. The former was cloaked under the discretionary function immunity. The latter was not.

Under current law, public entities in Alaska appear to be liable for any defect in the design, operation, or maintenance of a public facility which proximately causes injury.

2. California

The California Act essentially establishes a rule of negligence liability for injuries and damages arising out of the operation or maintenance of public property. "The public entity can be liable for negligently creating the dangerous condition in the first place; it can be liable when it knows of a danger and unreasonably fails to repair or maintain the public property in order to eliminate that danger; and it can be liable if its negligent failure to inspect the property prevents it from detecting dangers which themselves are reasonably preventable." Cal. Govt. C. Secs. 835-835.4. Liability is premised on public property being in a "dangerous condition." The test of whether a property is in a "dangerous condition" is whether the condition "creates a substantial (as distinguished from a minor, trivial or insignificant) risk of injury when such property or adjacent property is used with due care in a manner in which it is reasonably foreseeable that it will be used." Cal. Govt. C. Sec. 830(a). Public entity liability under the caselaw closely tracks private property owner's liability in California.

A seminal question is whether the possibility of the occurrence of a moderate earthquake is a substantial and reasonably foreseeable risk of injury since such earthquakes are unpredictable and occur only intermittantly over long periods of time. Some light on this question may be shed by Erfurt v. State, 141 Cal. App. 3d 837, 190 Cal. Rptr. 569 (1983). In Erfurt, on a portion of a state highway the glare of the sun blinded drivers for a period of fifteen to twenty minutes a day for about twenty days a year. The jury found this portion of the highway to be in a "dangerous condition." The jury finding was upheld on appeal. Thus, the fact that the condition is intermittant makes it no less "dangerous" for the purposes of the California Act.

Based on Erfurt, public property which is earthquake unsafe may be in a "dangerous condition." Current scientific thought supports the conclusion that a moderate earthquake will occur in California during the midterm (twenty to fifty years). This renders the moderate earthquake a foreseeable event. The mere inability to predict precisely when such an earthquake will occur does not render it "unforeseeable" under tort law. Moreover, under Erfurt, the mere fact that the earthquake will only last a short period during the lifespan of the public improvement does not make such a risk minor, trivial or insignificant.

Damages resulting from a design feature of a public improvement are not recoverable if (1) the design feature was actually approved in advance by the public entity exercising its discretionary authority in some explicit manner, and (2) the choice of the design feature is supported by "substantial evidence." Cal. Govt. C. Sec. 830.6. The judiciary has created an exception to the "design immunity". If "changed conditions" subsequent to the original design approval creates a dangerous condition on the property and the public entity has constructive or actual notice of the dangerous condition, the design immunity may be defeated. Baldwin v. State, 6 Cal. 3d 424, 99 Cal. Rptr. 145 (1972).

In response to Baldwin, an amendment to the California Act extends the design immunity to "changed conditions" circumstances for a reasonable period of time to permit the public entity to fund and carry out remedial work. Where practical necessity or insufficient funds prevent the remedial work from taking place, the immunity continues so

long as adequate warning of the "dangerous condition" is given by the public entity. There is no caselaw defining either a "reasonable period of time" or "adequate warning". Cal. Govt. C. Sec. 830.6

Cases continue to apply the three-part Baldwin test to determine whether a design immunity should apply. Levin v. State, 146 Cal. App. 3d 410, 194 Cal. Rptr. 223 (1983) (highway design case sent back to trial to determine whether official with authority actually approved design); Ramirez v. City of Redondo Beach, 192 Cal. App. 3d 515 (1987) (design of left turn lane not made unsafe by plant growth). These cases do not expand or further explain the Baldwin test.

3. Utah

Under the Utah Act, immunity is waived for any injury caused by a dangerous or defective condition of any public facility. U.C.A. Secs. 63-30-8 and 63-30-9. Immunity is reserved for the latent defective conditions of public facilities. U.C.A. Sec. 63-30-9.

In Sanford v. University of Utah, 488 P.2d 741 (Utah 1971), defendants argued that U.C.A. Sec. 63-30-10 waiving governmental immunity for the negligent acts of its employees limited the scope of the waiver of immunity for public facilities. The defendant contended that since none of its employees was involved in the allegedly defective design of a culvert which flooded the plaintiff's property, the waiver of immunity for public facilities did not apply. The court rejected this argument, stating that the waivers were absolute and limited only by general negligence rules under Utah law. The court also rejected an alternative contention by the defendant that the discretionary immunity should apply to the design of public facilities. Further, by so construing the public facilities sections, the court in Sanford held that the waiver of immunity applied to claims based on nuisance. See also Andrus v. State, 541 P.2d 1117 (Utah 1975).

Immunity against liability for latent defects in public facilities was retained under the Act. However, there has been no case significantly explaining the scope of this immunity. In Vincent v. Salt Lake City, 583 P.2d 105 (Utah 1978), the plaintiff's garage was damaged by water leaking from an unsealed storm water pipe owned by Salt Lake County Flood Control. In 1972, the county responded to plaintiff's inquiries by dispatching a crew to inspect a segment of the storm drain. The crew discovered some unsealed joints and repaired them. Another inspection was conducted in 1973 upon plaintiff's complaint. In 1974, plaintiff excavated along his garage and discovered a leaking and unsealed drain pipe. The county defended against the plaintiff's claim for damages, asserting that the leaking storm drain was "a latent defective condition." The court referred to a dictionary definition of latent defect and asserted that the earlier discovery by the county crews of unsealed joints showed that the defect which caused the damage to plaintiff's garage could have been revealed by a reasonable inspection. The court set forth no standards for determining when a defect may be latent within the meaning of U.C.A. Sec. 63-30-9. However, the language of the courts decisions conforms to general negligence principles.

In general, one could conclude that governmental entities in Utah have no special defenses or immunities for injuries and damages caused by public facilities.

4. Washington

General principles of negligence govern the tort liability of public entities in Washington for damages and injuries resulting from public facilities. The Washington court has had

two opportunities to address the issue of whether the discretionary function immunity articulated in Evangelical applies to tort claims arising from public facilities.

In Stewart v. State, 92 Wn. 2d 285, 597 P.2d 101 (1979), the court examined the question of whether the failure of the state to install lighting and a sign warning of narrow passage on a bridge was a discretionary function. First, the court in Stewart noted that the governmental entity must actually "make a showing that such a policy decision, consciously balancing risk and advantages, took place." Stewart at 106 quoting King v. Seattle. It then concluded that the decision did not meet the Evangelical test. In dicta, the court stated that the governmental decisions to build the bridge, locate the bridge across the river, and designate the number of lanes could be afforded discretionary immunity. However, the design decisions made in carrying out the basic governmental policy decision are not immune.

In Riley v. Burlington Northern, Inc., 27 Wash. App. 11, 615 P.2d 516 (1980), plaintiffs alleged that Yakima County was negligent in failing to install a more sophisticated warning system than a standard non-mechanical railroad approach warning sign at a railroad crossing where injuries were suffered by the plaintiffs. In an attempt to meet the Evangelical four-part test for discretionary immunity, the county presented evidence that it created a list of railroad grade crossings for submission to the state highway commission to fund improvements at such crossings. The county's list was compiled based on the following criteria: available funding, traffic counts at the various crossings, obstructions of view, serious accident histories, and topographical problems. The Riley court simply ignored the county's argument. It alluded to the factual similarity between the case at bar and Stewart, and found Stewart to be controlling.

Under current Washington law, decisions regarding public property, even though it may be interwoven with basic governmental policy considerations, will not be immunized against tort liability.

5. Summary

In Alaska, local government liability for public facilities is equivalent to that of a private property owner except that the discretionary function immunity is available, in most cases, to shield the initial decision to build, or not build, the facility.

California local governments are liable for injury and damage resulting from public facilities in a "dangerous condition." The cases closely track private sector tort liability in similar circumstances. However, if the design of a public facility is the cause of the injury or damage, local governments may be immune if (1) the original design decision was by a policy making body after a considered weighing of the potential problems, and (2) any "changed conditions" are given due consideration and reasonable action is taken, or reasonably deferred.

In Utah, local governments are liable for injury and damage caused by public facilities. Immunity retained for "latent defects" appears to be no more than a restatement of general tort principles.

In Washington, local governments are liable for injuries and damage caused by public facilities. The possible use of the discretionary function immunity for certain decisions regarding public facilities (e.g. decisions to build, siting, etc.) is undeveloped at this time.

D. Damages Caused by Public Property (Inverse Condemnation)

Government authorities generally cannot appropriate private property for public use without paying "just compensation" to its owner. This principle is articulated in the United States Constitution and in the constitutions of the four states under study in this background report. In the normal course of business, state and local governments "take" property for an expressed purpose and do so by purchasing the property right through condemnation proceedings that determine and award just compensation to the owner of the condemned property. However, courts have held that state and local governments also "take" property, and thereby incur the obligation to compensate its owner, when such entities impair or destroy property or property rights by other means. In such cases, property owners are granted the right to bring suit against the public entity in an action for "inverse condemnation" to compensate them for the value of the impairment, or the property.

Inverse condemnation cases usually arise in one of two factual contexts. First, a public entity may directly, or indirectly cause actual physical harm to private property. Typically, claims arise from the release of water from pipes, conduits and similar devices that damage low lying lands and property, and the construction of facilities, which construction causes subsidence or the failure of lateral support to adjoining property. Second, land use regulation may damage, or destroy the value of private property. Under certain extreme circumstances, such regulatory action can qualify as a "taking." Given the factual contexts in which earthquake related harm is likely to arise, the latter type of inverse condemnation is not reviewed in this background report.

Of the states surveyed, California has the most developed law in this area. Utah has some decisions on the issue of inverse condemnation. Research has not uncovered any appellate decisions on inverse condemnation claims based on physical damage to private property in either Alaska or Washington.

1. California

California recognizes inverse condemnation based on the provisions of the California Constitution Article I, Section 19: "Private property may be taken or damaged for public use only when just compensation . . . has first been paid to . . . the owner." Governmental immunity from tort liability, to the extent it exists, is not a bar to a suit based on inverse condemnation. Rose v. State, 19 Cal. 2d 713, 123 P.2d 505 (1942).

Public entities have been held liable for compensation under the theory of inverse condemnation when private property has been damaged by surface water discharge, Yee v. City of Sausalito, 141 Cal. App. 3d 917, 190 Cal. Rptr. 595 (1983) (city liable when storm drain rupture caused massive subsidence of adjacent lands) and for interference with the stability of adjacent private lands Barnhouse v. City of Pinole, 133 Cal. App. 3d 171, 183 Cal. Rptr. 881 (1982) (relocation of a stream by highway construction caused subsidence to adjacent land). In inverse condemnation cases, so long as the public facility is functioning in the manner in which it was originally and deliberately designed and constructed, and the public facility, or its construction, causes the physical damage, the inverse condemnation claim will prevail. The mere fact that the public facility failed in some manner is not dispositive of the issue. A storm drain can rupture and liability will still be found if the damage results from the impounded water. However, it does not appear likely that liability would be found if the damage results from a section of pipe falling into a home.

If the cause of the damage is the public entity's failure to properly maintain the public facility, there is no basis for a recovery in inverse condemnation. McMahan's v. City of Santa Monica, 146 Cal. App. 3d 683, 194 Cal. Rptr. 582 (1983).

There have been no appellate cases on inverse condemnation where an earthquake was the cause of the public facility's failure.

One court in California has sustained an individual's right to bring suit in inverse condemnation for a public entity's demolition of a private building damaged after an earthquake. Rose v. City of Coalinga, 190 Cal. App. 3d 1627, 236 Cal. Rptr. 124 (Cal. App. 5 Dist. 1987). In Coalinga, the city suffered an earthquake which caused substantial physical damage to downtown buildings. The city notified the owners of these buildings, including the Roses, that the majority of these building would have to be demolished. The Roses' architect and engineer advised them that their building could be economically repaired. The architect's report was given to the city. The state Office of Emergency Services structural safety report found no hazard in the building. The building was demolished almost two months after the earthquake.

The Coalinga court acknowledged that public agencies have the power to damage or destroy property without paying compensation in emergency situations. House v. L.A. Flood Control District, 25 Cal. 2d 384, 153 P.2d 950 (1944). However, the power can only be exercised in circumstances which make the damage or destruction necessary. *Id.* at 388-89, citing Archer v. City of Los Angeles, 19 Cal. 2d 19, 119 P.2d 1 (1941). The public entity will be liable in inverse condemnation if it cannot prove that the circumstances justify its actions. Leppo v. City of Petaluma, 20 Cal. App. 3d 711, 97 Cal. Rptr. 84 (1971). The court held that the City of Coalinga must return to the trial court to prove that the circumstances warranted destruction of the Roses' building. The case has been settled out of court.

Damages in inverse condemnation actions are limited to the market value of property destroyed, or to the reduction in market value of property damaged. People v. La Macchia, 41 Cal. 2d 738, 264 P.2d 15 (1953); People ex rel. Dept. of Public Works v. Hayward Building Materials Co., 213 Cal. App. 2d 457, 28 Cal. Rptr. 782 (1963).

2. Utah

Whether Utah recognizes an action for inverse condemnation is not totally clear. The Utah Constitution provides that private property cannot be taken or damaged for public use without just compensation. Utah Const. Art. I, Sec. 22. However, the Utah court has held that this provision is not "self-executing." A further legislative act authorizing payment, and, if necessary, suit in the particular circumstances is necessary. Fairclough v. Salt Lake County, 354 P.2d 105 (Utah 1960).

A federal court, interpreting Utah law, held that the Utah Act was the further legislative act necessary to permit the recovery of damages in inverse condemnation. Katos v. Salt Lake County, 634 F. Supp. 100 (D. Utah 1986). The applicability of the Katos case is in dispute. The 1987 amendments to the Utah Act may have clarified the matter by adding U.C.A. Sec. 63-30-10.5 which provides that "immunity from suit of all governmental entities is waived for the recovery of compensation from the governmental entity when the governmental entity has taken or damaged private property without just compensation."

Several inverse condemnation suits based on local governments' handling of the 1983 rains and resulting flood and mudslide damages are currently on appeal before the Utah Supreme Court.

E. Emergency Response and Services

1. Alaska

The Act immunizes a municipality and its agents, officers or employees for claims "based upon the exercise or performance of a duty or function upon the request of, or by the terms of the agreement or contract with, the state to meet emergency public safety requirements." Alaska Stat. Sec. 09.65.070(d)(5). This immunity has not been construed by Alaska courts. However, on its face, it appears to be an absolute immunity. Therefore, any emergency response program conducted by a local government agency under an agreement with the state will not expose the local government agency to tort liability.

In the absence of such an agreement, the local public agency must look to the discretionary function immunity. Under Alaska's planning/operational test, whether field decisions made in the implementation of the plan are immune is unclear.

It may be possible to articulate an emergency response plan where decision-making, based on policy factors, can be delegated to the field personnel. For example, field decisions on whether to allocate emergency response resources (personnel, food, clothing, shelter) to one area or the other, or the deployment of emergency response based on constructions of traffic flow, potential hazards generated by movement into affected areas and the existence of more pressing safety problems in other locations, may be able to meet the Wainscott standards for discretionary immunity.

2. California

California has passed specific legislation on local government liability for emergency earthquake response. Cal. Govt. C. Sec. 8644 (immunity for discretionary functions of a public entity or its employees during a declared emergency); Cal. Civ. C. Sec. 1714.5 (immunity of a disaster service worker for services ordered by lawful authorities during a state of emergency). There may be potential liability in instances where a question arises as to whether a disaster service worker was "ordered" to perform a specific task and the task was not a discretionary function.

However, even in the limited factual circumstances where a public entity cannot raise the statutory immunities, it may be difficult for an injured party to prove the existence of a duty owed to that party. A public entity's, and its employee's, responsibility to protect members of the public from harm caused by a third party is narrowly circumscribed. Unless there is a special relationship between the public employee and the injured party or the third person causing the harm, no duty will be found. Williams v. State of California, 34 Cal. 3d 18, 192 Cal. Rptr. 233 (1983). In Williams, the plaintiff was injured by flying debris on the highway. Patrol officers failed to preserve evidence necessary to support plaintiff's potential civil suit against a third party. No special relationship results from mere rendering of aid to a motorist. The court concludes that:

. . . plaintiff has not stated a cause of action in that she fails to establish a duty of care owed by defendant state. The officers did not create the peril in which plaintiff found herself; they took no affirmative action which contributed to, increased, or changed the risk which would have otherwise existed; there is no indication that they voluntarily assumed any responsibility to protect plaintiff's prospects for recovery by civil litigation; and there are no allegations of the requisite factors to a finding of special relationship, namely detrimental reliance by the plaintiff on the officers' conduct, statements made by them which induced a false sense of security and thereby worsened her position. Id at 239.

Williams has been applied to an emergency response situation. Westbrooke v. State, 173 Cal. App. 3d 1209, 219 Cal. Rptr. 674 (Cal. App. 2 Dist., 1985). In Westbrooke, after heavy rains and flooding caused a highway bridge to collapse, the county sheriff's department established a traffic control point 1.3 miles from the bridge to direct traffic until the California Department of Transportation could set up barriers. The plaintiff's son drove through the control point and died in the plunge off the bridge. Without proof that the county's action increased the risk of harm or that the decedent had detrimentally relied on the county's action, the court held no "special relationship" had been established.

In summary, within the narrow scope of factual situations where a service disaster worker is neither exercising a discretionary function nor operating under orders, and where a special relationship can be shown, liability may be imposed. However, in all other cases, the local government is immune from liability.

3. Utah

The Utah Act explicitly defines the "management of flood water and other natural disasters" as governmental functions and provides that the governmental entities and others employees are immune from suit for any injury or damage resulting from these activities. U.C.A. Sec. 63-30-3. The Act then waives immunity for injury caused by the negligent acts of a public employee. However, it retains immunity for any injury which "arises out of the activities of providing emergency medical assistance, fighting fire, handling hazardous materials or emergency evacuations." U.C.A. 63-30-10(1)(e).

The intent of the legislature is unclear. If U.C.A. Sec. 63-30-10 does waive the explicit immunity provided under 63-30-3, then some emergency activities may remain exposed to liability. If such is the case, Utah's application of the discretionary function immunity and planning/operational test would probably make public entities liable for all field decisions except the situation described in Section II. E. 1. of this background report.

4. Washington

Under the discretionary immunity test articulated in Evangelical, the decision to implement an emergency response program is immune. Cougar Business Owners Association v. State, 97 Wn. 2d 466, 647 P.2d 481, cert. denied 103 S. Ct. 301 (1982). In Cougar, the governor's decision to evacuate an area around Mt. St. Helens was immune.

Local governments may be able to raise the discretionary function immunity articulated in Evangelical against liability arising out of claims that the emergency response plan was

negligently designed. The immunity may even be available for some decisions made in the course of implementing the plan (see discussion in Section II. E. 1. of this background report).

Liability for allegedly negligent design of those elements of the emergency response plan not immunized under the discretionary function immunity and for the implementation of the plan must be predicated on one of the three criteria for establishing a special duty between the public entity or public employee and the injured party. If the emergency response plan is the product of a statute or ordinance, then the special duty may be created either if the statute identifies a circumscribed class of persons to be protected under the statute and the plaintiff is a member of the protected class, or the statute imposes an obligation on the public entity or public employee to abate a dangerous condition which becomes known to the public entity or public employee. These two grounds for the establishment of a special duty would be applicable either to defective design of an emergency response plan or its implementation. The third criteria rests on assurances provided implicitly or explicitly to an injured party having direct contact with the public entity/employee. This basis for establishing a special duty would appear to be applicable only to the implementation of an emergency response plan. Liability under any of these criteria would, therefore, rest on specific facts and the existence of certain types of enactments.

5. Summary

In Alaska, any emergency response action taken pursuant to a request by, or an agreement with the state is immune. Any other emergency response action must seek shelter under the discretionary function immunity. Although design of the emergency response plan would probably be immune, its field implementation may not be.

California statute provides immunity for both discretionary and operational decisions made in emergency situations. In the highly unusual circumstance where the statutory immunity is not available, the injured party would probably not be able to establish a legal duty upon which to base a tort claim.

The Utah statute also provides statutory immunity for public entities and their employees in most emergency response situations. In the unusual circumstance where the statutory immunity is not available, the public entity may be liable for the non-discretionary acts of its employees.

The discretionary immunity is the the only defense for local governments in Washington. Emergency response field decisions are probably not immune. Therefore, the question of whether the public entity owes a duty to the injured party is pivotal. However, it is one difficult to analyze in the abstract.

IV. ANALYSIS OF HYPOTHETICAL SITUATIONS

Each of nine hypothetical scenarios will be analyzed under the laws of the states of Alaska, California, Utah and Washington for the probable basis of a lawsuit seeking recovery for personal injury and/or property damages caused by earthquake-related hazards.

A. Emergency Response

1. The city's emergency response team has been trained prior to the earthquake event to initially conduct an overall damage assessment before responding. A moderate earthquake occurs, and the team responds to a collapsed building before conducting an overall damage assessment, and therefore delay its response to a major release of toxic gases which becomes a greater life-safety hazard than the building. Deaths and illnesses occur due to the toxic fumes.

The following assumptions are made: (1) the city council's action consists solely of approving a budget item for emergency response training; (2) the Fire Chief (who is in charge of the program) hires an outside firm to provide the training; and (3) the damage assessment procedure is standard training procedure recommended by the State's Office of Emergency Services.

The issues which will be examined are: (1) is there potential liability for the response team's failure to follow the training procedure; and (2) is there an applicable immunity?

a. Alaska

Under the Alaska Act, the city's general sovereign immunity is abolished and local governments are treated the same as private parties for the purpose of tort liability. In the most general terms, whether the response team's behavior is negligent is determined by the "reasonable person" rule, i.e., what would a reasonable person have done under similar circumstances and how does the response team's actions compare? In certain circumstances the standard by which the alleged tortfeasor (in this case, the response team) is judged is the one utilized by others with similar specialized skills i.e., what would a reasonable person with similar skills who exercises those skills in the same locality as the tortfeasor have done under similar circumstances and how does the response teams efforts compare? Essentially, this is a variation of the reasonable person rule and will be referred to as such in this background report. Whether the "expert" variation of the reasonable person rule will be applied to a specific situation is difficult to predict in an earthquake scenario. It will certainly be applied to licensed professionals (engineers, architects and doctors). It may be applied to professional emergency response personnel.

The fact that the emergency response training includes an initial overall damage assessment prior to taking action is evidence that the response team's failure to do so was negligent. The Office of Emergency Services support of this training lends weight to the argument that failing to perform the damage assessment falls below the reasonable person standard. However, traditional tort analysis generally does not favor liability based on an individual's failure to take action to avert harm caused by a third party (the earthquake).

Assuming that the response team breached a standard of due care, the injured parties must then prove that the breach caused (in a manner that the law characterizes as "proximate cause") the injuries. To do so, they must prove each of the following: (1) if the response team had performed the overall damage assessment, it would have responded in a manner which would have prevented or mitigated the escape of toxic fumes; and (2) a particular victim, or a group of victims all similarly situated at the time of injury, would have not suffered injury, or would have suffered measurably less serious or fewer injuries. Under the extraordinary circumstances of an earthquake, it may be difficult, as a practical matter, to prove the foregoing.

Assuming that the injured parties can prove that there was a breach of duty by the response team and that the breach proximately cause the injuries, is there an immunity available to the city?

If the emergency response team is acting pursuant to a request by the state, or pursuant to the terms of an agreement with the state, the city is immune. Alaska Stat. Sec. 09.65.070(d)(5). It is unclear whether a statutory mandate falls within this immunity. The balance of this analysis assumes the statutory immunity is not applicable.

Two other statutory immunities may be applicable. First, a municipal fire department has an absolute immunity against tort liability based on the "execution of a function for which the department is established." Alaska Stat. Sec. 09.65.070(c). The viability of this defense depends on the availability of historical and other records supporting the proposition that emergency response in general, or for an earthquake in particular, qualifies under the statutory language.

Second, the discretionary function immunity may be available. Decisions on deployment of the response team require consideration and weighing of factors which may make them "planning" rather than "operational". For example, the decision to deploy ten team members with three pieces of equipment to a collapsed building rather than the same men and equipment to a toxic gas release could involve policy considerations on which situation posed the greater danger to the general welfare; whether a response to bodily injury or toxic fumes containment were more important; and the logistics of deploying the team and equipment to and from the affected areas. The mere fact that the response team may have failed to engage in this kind of evaluation by failing to make an overall damage assessment is irrelevant, so long as the decision could have been made and would otherwise be deemed to be a policy decision. See Industrial Indemnity.

b. California

California retains general sovereign immunity except as otherwise provided by statute. However, since public employees (such as the response team) are exposed to the same liability as private individuals, the breach of duty/proximate cause issues set forth in the Alaska analysis of the hypothetical also applies in California, with the caveat set forth below.

Nothing in the scenario appears to support the imposition of a duty running from the response team to the injured parties under either the "special relationship" doctrine or the mandatory duty rule. California courts have not articulated a public policy which would apply to the facts of this case. See Tarasoff and Cochran. There is no indication of reliance by any injured party which would qualify under Williams.

The training program itself would probably not constitute a mandatory duty on the response team to act as set forth in the training procedures. However, claims based on a police officer's violation of internal fire arms use procedures (adopted as "regulations") have been successful. Peterson v. City of Long Beach, 24 Cal. 3d 238, 155 Cal. Rptr. 360 (1979). But see Lopez v. City of San Diego, 190 Cal. App. 3d 678, 235 Cal. Rptr. 583 (1987). It is not clear whether the cases will be applied outside the limited police officer/firearms context. For the purpose of discussion, a legal basis for tort recovery will be assumed. However, California's statutory emergency response immunity applies to actions during an emergency. Cal. Govt. C. Sec. 644 and Cal. Civ. C. Sec. 1714.5. Therefore, the statutory immunity applies.

c. Utah

The structure of the Utah Act is similar to California's. This analysis commences with the assumption that the injured party will be able to articulate convincing arguments on the issues of breach of duty/proximate cause.

The city is immune, without exception, for all aspects of its management of natural disasters. U.C.A. Sec. 63-30-3. The analysis could end here. However, the emergency response team's failure to perform the damage assessment may not qualify as "management" of the natural disaster. If such is the case, the city must seek immunity under U.C.A. Sec. 63-30-10(1)(l). The only question is whether the response team training constitutes an activity of "providing emergency medical assistance, fighting fire, handling hazardous materials or emergency evacuation." No reported cases further explain the statutory provision and its application depends on the resolution of factual issues outside the scope of the scenario.

It seems likely that the decision to include this training element will be afforded the discretionary function immunity. The decision probably involves "plan-making" activities, identical in Bigelow. Further, the decision affects myriad, unforeseeable people, not a circumscribed class. Frank.

d. Washington

The emergency response team's failure to assess the situation would probably not be able to meet the Evangelical test for the discretionary function immunity.

Even if the immunity is not available, it will be difficult for the injured parties to prove liability under Washington's public duty doctrine. No statutory obligation, upon which to base a special relationship, appears applicable and no detrimental reliance is reflected in this scenario. Moreover, site interviews with Washington attorneys indicate that trial court results are much more conservative than the appellate decisions would lead one to believe.

2. The city's written earthquake response plan includes provisions for its building inspectors to inspect buildings after an earthquake. However, they never receive training on how to do this specialized type of inspection and never participate in a disaster exercise prior to the earthquake. An earthquake occurs and some buildings that should have been condemned are not, while others that should not have been condemned, are torn down.

In the following analysis, it will be assumed that: (1) the response plan is being prepared under a state statute; (2) the Emergency Services Director responsible for preparation of the plan never invites the building staff/inspectors to disaster response exercises; and (3) only the Chief Building Official participates.

The issues which will be examined are: (1) can the city be held liable for its failure to train or include the building inspectors in disaster exercises; (2) can the city be held liable for the negligent inspections; and (3) is there an applicable immunity?

a. Alaska

In those cases where no immunity applies, the injured parties will have a difficult task trying to establish a duty which the city breached and which, in turn, proximately caused the damage. See analysis in A.1.a. With respect to the failure to train the building inspectors or to require them to participate in disaster exercises, parties injured by a negligent inspection which causes demolition of a sound building must prove that this omission proximately caused the demolition of the building. For example, an injured party must present evidence that had the building inspector in question been trained or had participated in the disaster exercises, he/she would have come to the conclusion that the building should not be demolished. This may be a difficult task in a disaster/emergency response situation.

On its face, the statutory emergency response immunity of Alaska Stat. Sec. 09.65.070(d)(5) is not applicable to programs required by statute as opposed to those undertaken under an agreement/contract with the state. Therefore, neither the failure to train and/or practice nor the negligent inspections would be shielded.

The Director's failure to require building inspectors to be trained or participate in disaster exercises does not appear to be immune as a discretionary function. There are no obvious policy issues which would inform these decisions. Therefore, if a legal theory for recovery can be sustained, there is no immunity for the city's failure to train or to require participation in disaster exercises. The negligent inspections would certainly not fall within the immunity.

With regard to the negligent inspections, the pivotal question is the scope of the building inspection immunity under Alaska Stat. Sec. 09.65.070(d)(i). Clearly, the failure to detect and abate hazards in unsafe buildings is immune. "No action for damages may be brought . . . if the claim is based on a failure . . . to discover . . . a hazard . . .; or to abate . . . a hazard." Less clear is the availability of the immunity for demolition of sound buildings which results from the negligent inspection. There is no failure to detect a hazard but "detection of a non-hazard". This case does not fall within the "failure to inspect" portion of the immunity.

b. California

With respect to claims based on the failure to train building inspectors, or require building inspectors to participate in disaster exercises, the problem of proving a breach of duty and proximate cause must be overcome by the injured party. See analysis in A.1.a and A.2.a., and A.1.b., such claims may be covered by the inspection immunity of Cal. Govt. C. Sec. 818.6, if it is "part and parcel of the inspection or [had] a direct or proximate effect on it, affecting the results or findings made, or in some other way resulting in damage to the investigation itself." Cochran (See below). If it can be so characterized, it falls within the statutory immunity. If not, no other immunity is applicable. It should be noted, however, that an injured party attempting to differentiate its claim from the situation described in Cochran may weaken its own argument that the failure to require participation in the disaster exercises was a "proximate cause" of the property damage.

The city is immune for claims based on negligent inspection of the buildings. "A public entity is not liable for injury caused by its failure to make an inspection, or by reason of making an inadequate or negligent inspection, of any property, other than its property . . . for the purposes of determining whether the property complies with or violates any enactment or contains or constitutes a hazard to health or safety." Cal. Govt. C. Sec. 818.6. See also Cochran. However, it may be liable in inverse condemnation for wrongfully demolishing buildings. Coalinga.

c. Utah

The city is immune under Utah law for tort damages arising out of its inspection of the buildings. U.C.A. Sec. 63-30-10(1)(d). However, the demolition of structurally sound buildings may expose the city to inverse condemnation claims.

The Director's failure to train building inspectors and/or to require building inspectors to participate in disaster response exercises does not appear to be protected under 63-30-10(1)(d). Further, the discretionary function immunity would not appear to be applicable. Again, the question turns on whether there is a duty owed to the injured parties which is violated by the Director's failure to train the building inspectors and whether this breach proximately caused the harm.

d. Washington

None of the city's activities (the failure to train, the failure to include inspectors in disaster exercises, and the negligent inspections) are immune, as a discretionary function, under the Evangelical standards. However, the injured parties will have a difficult time meeting the public duty test. There are no facts in this scenario which would indicate that any specific enactment creates a protected class to which the city would owe a duty violated by its inspection activities or the Director's failure to require participation in disaster exercises or to train the building inspectors. In some factual situations, there may be sufficient contact between specific building inspectors and individual owners of property incorrectly demolished or parties injured by unsafe buildings so that a special relationship can be established. See Campbell and J&B Development. In such limited circumstances where the injured parties can show reliance on a specific negligent inspection, there may be some liability exposure.

B. Existing Private Hazardous Buildings

1. A city adopts a building ordinance that requires seismic retrofitting of large non-ductile concrete frame buildings that are privately-owned. The ordinance specifies that the buildings need not be brought up to the current code, but rather to the "life-safety standard" of the 1973 Uniform Building Code (UBC). A major earthquake occurs, and some injuries and property damage occur, some of which could have been averted if the building owner had complied with the latest building code.

Throughout the analysis, it will be assumed that: (1) the injured will be able to state a cause of action for recovery of tort damages; and (2) the legislative act of the city is immune.

The issue which will be examined is whether the immunity extends to adoption of the "life-safety standard".

a. Alaska

To qualify the city's selection of the 1973 UBC standard as a discretionary function, it must be proved that the city had the opportunity to base its decision on policy, planning or political considerations. Wainseott. Such an argument might point to the city's consideration of the following factors: (1) increased life-safety factor in buildings retrofitted to 1973 UBC standards; (2) comparatively small further increases in life-safety would be achieved by requiring disproportionately more expensive retrofitting to current standards; and (3) adverse impacts on areas of the city where a high concentration of non-ductile concrete buildings would result in demolition or abandonment, and attendant adverse impacts on the socio-economic condition of the city. But see Johnson.

It should be noted that successful assertion of the discretionary function immunity will defend against a claim based on the assertion that the city should have chosen a higher standard. It is unclear whether the immunity would apply if the underlying engineering analysis was negligently performed.

b. California

Local governments in California are immune from liability for adoption of an ordinance requiring retrofitting of unreinforced masonry buildings to less than current UBC standards. Cal. H. & S. C. Sec. 19160, et seq. The statutory immunity does not extend to the ordinance in the hypothetical since it applies to non-ductile concrete frame buildings. However, the city's adoption of the life-safety standards should qualify for the discretionary function immunity if issues similar to those discussed in the Alaska analysis are considered. Cal. Govt. C. Sec. 820.2.

Even in the absence of the discretionary function immunity, the city can raise a defense against the tort liability which is assumed to exist at the beginning of this analysis. As noted earlier, the city generally does not have an affirmative duty to avert or prevent harm caused by a third party. Nothing in the facts support a finding of a "special relationship" as defined in Tarasoff. No public policy compels the city to take any action to safeguard the occupants of non-ductile concrete frame buildings from injuries and damage resulting from an earthquake. Moreover, unless the city were to take the highly unlikely step to assure such occupants that its adoption of the ordinance would safeguard their well-being and their property, and such occupants were to detrimentally and

reasonably rely on such assurances, no special relationship could be established under the Mann line of cases.

c. Utah

At first blush this scenario would seem to fall squarely within the discretionary immunity available under the Utah Act, if the issues set forth in the Alaska analysis (Section B.1.a.) were considered by the city.

d. Washington

The discretionary immunity under Washington law would be applicable to the same extent as set forth in the analysis for Alaska, California and Utah. Moreover, the public duty doctrine in Washington poses a formidable obstacle to the ability of an injured party to sustain an argument that the city owed the injured party a duty violated by the adoption of the 1973 UBC standards. Unless individual building occupants contacted the city and detrimentally and reasonably relied on the safety of the building, Pierce would seem to preclude liability. It should be noted that on-sight interviews with Washington attorneys reveal that although appellate court standards for establishment of a public duty may seem expansive, actual jury decisions tend to be much more conservative.

2. The local government has an ordinance which requires the retrofitting of pre-1933 unreinforced masonry buildings. It has vigorously enforced the ordinance as it applies to essential facilities, that is hospitals, police and fire stations, and commercial structures. The time has come to upgrade the residential buildings subject to the ordinance. Orders to comply are issued to all of the residential building owners. The tenants, fearing substantial rent increases, prevail upon the local government to enact a moratorium on enforcing the ordinance. The local government does so and an earthquake occurs during the period of the moratorium resulting in numerous deaths and severe injuries to persons residing in these buildings. The buildings which were upgraded in compliance with the ordinance did not sustain any material damage in the earthquake.

The issue which will be examined is whether the local government is immune for its decision not to perform the ordinance.

In all the states reviewed, the moratorium enacted by the legislative body is immune on a discretionary function. The decision involves matters clearly within the legislative branches exclusive province, i.e. weighing of political, economic and social factors in an attempt to promote the commonwealth. For California the principle is codified in Cal. Govt. C. Secs. 818.2 and 820.4.

3. **A city or county makes a decision based on fiscal constraints not to comply with a California law (SB 547) requiring it to identify all unreinforced masonry buildings (with certain exceptions, including single-family homes). The owner and his customers are severely injured in a moderate earthquake in one of these buildings. The owner claims that he would have retrofitted the building had he been notified that a problem existed.**

In the analysis of this scenario, the following assumptions are made: (1) there are statutes comparable to California's SB 547 in each of the states for which the analysis is undertaken; and (2) the local government analyzed its revenue projections, the cost of essential programs and reached a reasonable conclusion that it did not have sufficient funds to undertake the inventory activities mandated by the state statute for the then current fiscal year.

The issue which will be examined is whether a local government can be held liable in tort for its failure to undertake a court mandated earthquake hazard reduction program.

a. Alaska

Absent the statutory mandate, it is clear that local governments in Alaska would not be liable in tort for their failure to identify unreinforced masonry buildings. Moreover, the plain language of the statutory discretionary function immunity clearly indicates that it is applicable to the hypothetical scenario. The immunity "is based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty . . ." (Emphasis added.) Alaska Stat. Secs. 09.65.070(d)(2). Thus, the local government's failure to comply with the statute is immune.

b. California

A public entity is liable for its failure to comply with a mandatory duty unless it has exercised reasonable diligence to discharge that duty. Cal. Govt. C. Sec. 815.6. Further, the injury which results from the local government's failure to comply with a mandatory duty must be of a type against which the enactment is designed to protect. There is no question that in this scenario the requirements of SB 547 are mandatory.

The harm suffered may be of the type against which the statute is designed to protect. The statute does not require retrofitting of the buildings. Therefore, its primary purpose is to inform and educate property owners. A foreseeable, and desirable result would be remedial action by the property owner in response to the local government's identification of the offending property. There is no reported case which would decide or inform the question of whether this apparent but unarticulated and secondary purpose of the statute is one on which the plaintiff can base a claim that the statute was "designed" to protect against the injuries and damages which would result from an unreinforced masonry building in an earthquake.

The next question is whether the local government has exercised reasonable diligence in the discharge of its duty. Under this scenario, the refusal by the local government to perform the building is based on "fiscal constraints". That the local government used due diligence to locate existing funds or seek new funds are presumed facts. Therefore, the immunity arguably applies. There is no reported case which would decide or inform the question of whether a considered policy judgment of this type excuses the local government's failure to follow the statutory mandate. However, it should be noted that if funds become available in the future, it will be unreasonable for the local government to refuse to comply.

Even if the mandatory duty doctrine applies, it may be very difficult for the injured party to prove that the failure of the local government to inventory the affected building proximately caused the injury which occurred. First, he would have to prove that he would have retrofitted the building. Second, he must prove that the retrofit would have prevented the particular harm which is the subject of the lawsuit. Both may be very difficult to prove after the fact.

c. Utah

Subject to statutory exceptions, the local government is immune from tort liability for "governmental functions", including the refusal of a local government to comply with the statutory requirement. U.C.A. Secs. 63-30-3 and 63-30-2(4)(a). If the decision not to comply is made by the legislative body of the local government, there appears to be no applicable statutory exception and the immunity is absolute. In the highly unlikely event that the refusal to comply with the statutory requirement is made by a public employee, then the refusal to comply would have to qualify as a discretionary function in order for the local government to be immune. The presumed basis of the decision not to comply appears to bring the decision within the immunity. Bigelow.

d. Washington

The presumption that the action of the local government is based on a considered evaluation of fiscal constraints brings the action within the Evangelical test for the discretionary function immunity.

C. Existing Public Hazardous Buildings

- 1. The local government knows, by virtue of a general survey, that one of its office buildings is structurally inadequate (perhaps it is an unreinforced masonry building or a non-ductile concrete building that does not comply with current code). The local government takes no action and a moderate earthquake occurs and results in deaths and injuries in that building from structural failure.**

The fact that the building does not comply with current code requirements is not evidence of negligence on the part of the local government. Current compliance is not required.

The basis for the governmental decision is not articulated. In all the states reviewed, there is liability either under a specific statement, or in general; for defective or dangerous conditions of a public facility. Claims will probably be based on the failure of the local government to take corrective action, e.g., retrofit, change use, abandonment, etc. Whether the local government's failure makes the property "dangerous" or breaches a duty owed to the injured parties are issues discussed in Section C.1. In this, and the prior hypothetical, some additional issues may be raised by injured parties who are employees of the local government. Under worker's compensation statutes, the local government employer's liability is absolute, but limited. If the injury occurs during the course of employment then the employee is entitled to compensation. However, the compensation is generally limited to direct expenses and lost wages excluding consequential and punitive damages. Some workplace safety ordinances (e.g. Cal. Lab. C. Sec. 6400 et. seq.). Nothing in the facts support a discretionary function immunity defense.

2. A local government building is known to be a collapse hazard in an earthquake. The local government made a study 10 years ago and determined that the cost of strengthening the building was several million dollars, an amount deemed unreasonably large by the elected body. An earthquake occurs; deaths and injuries result. At the trial, expert witnesses testify that a new technology had become available eighteen months before the earthquake that would have strengthened the building for a fraction of the previous estimate.

For the purpose of analysis, the following assumptions will be made: (1) the original design of the building was approved by the elected body; and (2) the original design was not defective by engineering standards then in effect.

The issues which will be examined are: (1) can the local government be held liable for its failure to retrofit the building ten years ago; and (2) can it be held liable for its failure to take advantage of the newly developed technology?

a. Alaska

Alaska has not afforded the discretionary function immunity to any local government decision regarding a public facility other than its decision to build, or not to build, a particular project. Attempts to shield decisions regarding the design of a public facility under the discretionary function immunity have been consistently rejected. I'Anson, J.A.L., and Johnson. However, it should be noted that in none of the reported cases was the actual design decision made by an elected body nor was the issue one of a retrofit/repair. In the hypothetical, the decision not to retrofit appears to fulfill all the policy requirements for the discretionary function immunity, i.e. one requiring consideration of policy issues and resource allocation. However, it happens to fall under the aegis of a group of cases which denies the immunity to "design" decisions. The balance of this analysis will assume that the local government is able to persuade the court on the merits of distinguishing this case from other "design immunity" cases.

Can the local government's discretionary function immunity be defeated by the availability of the new technology? Regardless of whether the initial decision not to retrofit is immune, can the local government be held liable for its failure to take advantage of the new technology? Assuming the local government was aware of the new technology, liability would be premised on its failure to take action. There are no reported Alaska cases imposing an affirmative duty on the local government in this type of situation.

b. California

Under Cal. Govt. C. Sec. 835-835.4 and Erfurt, the local government building is probably in a "dangerous condition". The first question is whether the design immunity under Cal. Govt. C. Sec. 830.6 is available. If the design element which makes the building a collapse hazard in an earthquake was approved prior to the construction of the building by the public entity, and that design element is both actually considered by the public entity and its decisions supported by substantial evidence, then the design immunity is available. However, the immunity can be defeated by "changed conditions". Baldwin.

"Changed conditions" as defined in cases subsequent to Baldwin have usually consisted of either changes in the use of a public facility or in the physical condition of a public facility, changes which render the public facility to be in a "dangerous condition". This

hypothetical scenario is unique, insofar as the public facility is in a "dangerous condition" at the onset. The "changed condition" consists of the local government's awareness of the problems and its decision not to retrofit the building.

To defeat the liability which would be imposed by the "changed conditions" doctrine, the local government must show reasonable and diligent efforts to solve the problem. The efforts might include engineering studies for more cost-effective retrofits, locating new funds, warning signs or other adjustments to building use to minimize danger.

The fact that a more cost-effective engineering solution becomes available prior to the earthquake would not automatically defeat the immunity. More likely, it would be viewed as part of the overall efforts of the local government to remedy the problem. Its failure to utilize the technology will have some bearing on the reasonableness and diligence of its efforts to minimize the danger.

c. Utah

The Utah Act waives immunity for harm caused by the dangerous condition of a defective building except for "latent defects". U.C.A. Sec. 63-30-9. The problem is not latent. The next question is whether the building is in a dangerous condition. The building is perfectly safe if an earthquake does not occur. One could argue that this perfectly sound building is not made dangerous by the mere fact that an extremely infrequent and unpredictable event occurred. In short, the local government would argue that it has no duty to make the building earthquake safe in light of the current level of geological and engineering knowledge.

The design immunity argument has been rejected in Utah. Sanford. However, the local government should be able to raise the same issues as those set forth in Section C.1.a., i.e. the decision not to retrofit involves considerations which fall squarely within the underlying policies of the discretionary function immunity.

d. Washington

There is no statutory basis for a defense in Washington. The courts have rejected attempts to immunize design decisions. Stewart. The courts have also rejected design immunity arguments where the design choice was driven by traditional planning-type of criteria. See Riley. The only question is whether the local government had a duty to make the building safer and whether its failure to do so proximately caused the harm.

The public duty doctrine does not appear to have been an issue in public facility cases. This may be due to the special duties owed by a landowner to individuals on the land.

D. Relating to Permitting and Approving Private Buildings

1. The local government approves a residential development in an area that the developer's consultants have noted has potential problems because of the foundation materials and proximity to a known active fault. The developer has modified the project by avoiding specific known hazardous locations (including an active fault trace as specified in California's Alquist-Priolo Special Studies Zones Act) and constructing smaller buildings of wood rather than concrete high rises. The buildings constructed comply with the building code in force at the time of construction. The remaining risk is thought to be acceptable. Damage and injuries occur after the earthquake in spite of these precautions.

For the analysis of this hypothetical situation, it will be assumed (1) that non-California jurisdictions have either locally prepared fault maps or that a state department or agency has pertinent fault maps available, either of which show an active fault trace near the development; and (2) that a more "state of the art" building code was issued and adopted by the local government shortly after the issuance of the building permit. The issue which will be examined is whether the local government can be held liable for issuing the permit.

a. Alaska

In addition to the judicially prescribed discretionary immunity, the local government also has a statutory immunity for claims arising out its issuance of a permit. Wilcox and Alaska Stat. Sec. 09.65.070(d)(3). The immunities, on their face, are absolute. The local government would probably not be liable. This is not dispositive of the question of the owners potential liability.

b. California

The local government would probably be immune for any claim arising out of its issuance of the permit so long as it has the discretionary power to issue, or not issue, the permit. This appears to be the case here. There are no facts which would support application of the Morris rule which would overcome the immunity of the local government which issues the permit; if it did so, without complying with a mandatory duty.

c. Utah

The statutory immunity for permit issuance is absolute on its face. U.C.A. Sec. 63-30-10(c). There is no indication that the local government did anything which would overcome the immunity.

d. Washington

Apparently, the only defense to liability is the public duty doctrine. Under this analysis, two arguments may be advanced by the injured parties: (1) they are members of a class to be protected from earthquake-related harm by the fault mapping enactment (assuming one exists) or the building code's seismic safety aspects; or (2) they have had direct one-to-one contact with the local government which led them to rely on the local government as to the safety of the building.

With respect to the first argument, the builders can recover damages if they can prove negligence in the local government's issuance of the permit. J&B Development; Pierce. Occupants of the building may recover only if there is negligence in issuing the permit based on the fault map. Pierce. But see Halvorson.

Current technological information places as much emphasis on soil type as on proximity to a fault as an indicator of seismic safety. Therefore, aside from a negligent reading of the fault map, or negligent preparation of the fault map which causes a house to be built spanning a fault, it may be difficult for an injured party to prove that the negligence caused any damages.

The current UBC requirements may not represent the safest solution to the seismic problem at the site. However, the adoption of UBC standards by the local jurisdiction is probably immune as a discretionary function. Evangelical. Therefore, whether the current standards are the "best" standards is irrelevant.

2. **A local government has adopted the building drift requirements of the Uniform Building Code. However, in practice, the local building department has consistently not enforced these provisions when their enforcement would require reduction of the building size. Building damage in a subsequent earthquake are shown to be caused by pounding due to drift.**

It is assumed that "non-enforcement" consists of issuing building permits without imposition of the requirements.

The issues and analysis of this scenario are the same as for the preceding except as set forth below. Further, local governments are generally immune for their failure to enforce a law. Therefore, even if the elected body is aware of the "non-enforcement", there is probably no liability resulting from that knowledge.

In California, it could be argued that the UBC drift requirements constitute a mandatory duty. The official's failure to enforce these provisions would expose it to liability. Morris. The legislative amendment of the Morris rule has no bearing in this situation. The issue of liability will turn on who authorized the non-enforcement (possible discretionary immunity) and problems of proving that the unimplemented standards would have prevented the harm (problems of proof and proximate cause).

In Washington, the failure to perform as mandated by an applicable enactment will impose liability for harm to all those who may forceably be injured by such failure. Campbell. The injured party here faces the same issues of proof and proximate cause confronting the California plaintiff.

In both California and Washington, the issue of proximate cause will probably be resolved through the use of expert witnesses. Some, will hold the view that preventing drift is desirable. Others will contend that permitting drift (and the building-to-building pounding that results) is; on the whole, more beneficial in that it allows the dissipation of energy.

E. Relating to Hazardous Materials in Earthquakes

1. **The local government has on-site storage of hazardous materials. The storage conforms to all pertinent State and local regulations. However, these standards do not require secondary containment facilities for above ground containers. Earthquake resistant design criteria, as specified in the Uniform Building and Fire Codes, have been met. A major earthquake occurs, some storage vessels rupture, and some pipelines and pipe-vessel connections fail. Some of the materials contaminate the air; others leak into storm drains, sewers and the ground. Illnesses, fish kills, and sewage treatment disruption occur due to the air and water pollution. Two months later, water supply agency monitors determine that their ground water resources have been contaminated for an indefinite period.**

It will be assumed that the facility was constructed prior to 1985.

The issues which will be examined are: (1) can the local government be held liable for negligent design of the facility, and (2) can the local government be held strictly liable for its handling of hazardous materials.

a. Alaska

The Alaska Act contains no applicable statutory immunity. The kind of factors which would usually be considered in specifying the type of storage containers and piping would not qualify the decision for the discretionary function immunity. Wainscott, l'Anson, J.A.L., Johnson.

The first question is whether the design of the storage facilities is negligent. In the absence of an immunity, the local government will be treated like a private individual for the purpose of determining whether its actions were negligent. Under general tort principles, compliance with regulatory standards is not a bar to a finding of negligence, although violation of such standards creates a presumption of negligence. Whether the local government will be held liable depends on the technical justification for the facility as designed versus arguments that more stringent standards should have been used.

Since Alaska abolished general sovereign immunity, subject to specific statutory immunities, local governments are theoretically strictly liable if the storage of hazardous materials is characterized, under Alaska law, as an ultrahazardous activity. In this respect, the postures of local governments, and the private sector are the same.

b. California

California retains sovereign immunity subject to statutory liability. Therefore, the injured parties must prove that the facility was in a dangerous condition under Cal. Govt. C. Secs. 835-835.4. The issues surrounding whether the facility is dangerous are the same issues as those described in the above analysis of whether the local government is negligent in Alaska. Even if the plaintiff is successful in this tack, the local government may be able to raise the design immunity if it can satisfy the conditions of Cal. Govt. C. Sec. 830.6.

There is no statutory liability for "ultrahazardous" activities. Therefore, there does not appear to be a basis for imposing strict liability in the case. However, the local government can be held liable for property damage under inverse condemnation claim.

Since liability is imposed on mere proof of causation, without proof of fault, it resembles strict liability in practice.

c. Utah

The analysis under Utah law is the same as under California except that the design immunity is not available. Instead, the local government may try to assert that the defect is latent. This would be a case of first impression under Utah law.

d. Washington

No immunity is available under Washington law. However, it may be difficult to establish liability under the public duty rule. Statutes and regulations which could be the bases for finding a special relationship between the local government and injured parties have not been violated. Nothing in this scenario suggests that a special relationship, based on direct contact between the local government and any injured party, can be established. Even if strict liability is imposed, it seems probable that the injured party must meet the public duty test.

BACKGROUND RESEARCH REPORT #2

KEY STATUTES AND CASES

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I. TORT CLAIMS ACTS

A. CALIFORNIA TORT CLAIMS ACT

The California Tort Claims Act was first enacted in 1963 (Cal. Government Code section 810 et seq.). The Act deals generally with the liabilities and immunities of public entities and public employees in California and includes specific reference to earthquake predictions. The following pages are a reproduction of the Act.

Title 1, Division 3.6, California Government Code Claims and Actions Against Public Entities and Public Employees

Part 1 -- Definitions

810. Construction; Provisions governing

Unless the provision or context otherwise requires, the definitions contained in this part govern the construction of this division.

810.2. "Employee"

"Employee" includes an officer, judicial officer as defined in Section 28 of the Elections Code, employee, or servant, whether or not compensated, but does not include an independent contractor.

810.4. "Employment"

"Employment" includes office or employment.

810.6. "Enactment"

"Enactment" means a constitutional provision, statute, charter provision, ordinance or regulation.

810.8. "Injury"

"Injury" means death, injury to a person, damage to or loss of property, or any other injury that a person may suffer to his person, reputation, character, feelings or estate, of such nature that it would be actionable if inflicted by a private person.

811. "Law"

"Law" includes not only enactments but also the decisional law applicable within this State as determined and declared from time to time by the courts of this State and of the United States.

811.2. "Public entity"

"Public entity" includes the State, the Regents of the University of California, a county, city, district, public authority, public agency, and any other political subdivision or public corporation in the State.

811.4. "Public employee"

"Public employee" means an employee of a public entity.

811.6. "Regulation"

"Regulation" means a rule, regulation, order or standard, having the force of law, adopted by an employee or agency of the United States pursuant to the federal Administrative Procedure Act (Chapter 5 (commencing with Section 5001) of Title 5 of the United States Code) or as a

regulation by an agency of the state pursuant to the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Division 3 of Title 2 of the Government Code).

811.8. "Statute"

"Statute" means an act adopted by the Legislature of this State or by the Congress of the United States, or a statewide initiative act.

Part 2 -- Liability of Public Entities and Public Employees

Chapter 1. General Provisions Relating to Liability

Article 1. Scope of Part

814. Statute's inapplicability to contractual liability or nonmonetary relief

Nothing in this part affects liability based on contract or the right to obtain relief other than money or damages against a public entity or public employee.

814.2. Absence of implied repeal of Workers' Compensation statutes

Nothing in this part shall be construed to impliedly repeal any provision of Division 4 (commencing with Section 3201) or Division 4.5 (commencing with Section 6100) of the Labor Code.

Article 2. Liability of Public Entities

815. Absence of liability for injury except under statute; Liability as subject to statutory immunity and defenses

Except as otherwise provided by statute:

(a) A public entity is not liable for an injury, whether such injury arises out of an act or omission of the public entity or a public employee or any other person.

(b) The liability of a public entity established by this part (commencing with Section 814) is subject to any immunity of the public entity provided by statute, including this part, and is subject to any defenses that would be available to the public entity if it were a private person.

815.2. Causes of injuries for which public entity liable; Absence of liability where employee immune

(a) A public entity is liable for injury proximately caused by an act or omission of an employee of the public entity within the scope of his employment if the act or omission would, apart from this section, have given rise to a cause of action against that employee or his personal representative.

(b) Except as otherwise provided by statute, a public entity is not liable for an injury resulting from an act or omission of an employee of the public entity where the employee is immune from liability.

815.4. Tortious act or omission of independent contractor; Limitation on liability

A public entity is liable for injury proximately caused by a tortious act or omission of an independent contractor of the public entity to the same extent that the public entity would be subject to such liability if it were a private person. Nothing in this section subjects a public entity to liability for the act or omission of an independent contractor if the public entity would not have been liable for the injury had the act or omission been that of an employee of the public entity.

815.6. Liability on failure to discharge statutory duty

Where a public entity is under a mandatory duty imposed by an enactment that is designed to

protect against the risk of a particular kind of injury, the public entity is liable for an injury of that kind proximately caused by its failure to discharge the duty unless the public entity establishes that it exercised reasonable diligence to discharge the duty.

816. Immunity from liability for National Guard activities

A public entity is not liable for injury arising out of any activity conducted by a member of the California National Guard pursuant to Section 316, 502, 503, 504, or 505 of Title 32 of the United States Code and compensated pursuant to the Federal Tort Claims Act.

It is the intent of the Legislature, in enacting this section, to conform state law regarding liability for activities of the National Guard to federal law as expressed in Public Law 97-124.

817. [No section of this number]

818. Absence of liability for exemplary and punitive damages

Notwithstanding any other provision of law, a public entity is not liable for damages awarded under Section 3294 of the Civil Code or other damages imposed primarily for the sake of example and by way of punishing the defendant.

818.2. Adoption or failure to adopt enactment; Failure to enforce law

A public entity is not liable for an injury caused by adopting or failing to adopt an enactment or by failing to enforce any law.

818.4. Determination as to issuance, denial, suspension or revocation of license or similar authorization

A public entity is not liable for an injury caused by the issuance, denial, suspension or revocation of, or by the failure or refusal to issue, deny, suspend or revoke, any permit, license, certificate, approval, order, or similar authorization where the public entity or an employee of the public entity is authorized by enactment to determine whether or not such authorization should be issued, denied, suspended or revoked.

818.5. Liability of Department of Motor Vehicles to lienholder

The Department of Motor Vehicles is liable for any injury to a lienholder or good faith purchaser of a vehicle proximately caused by the department's negligent omission of the lienholder's name from an ownership certificate issued by the department. The liability of the department under this section shall not exceed the actual cash value of the vehicle.

818.6. Failure to make any, or adequate, inspection of property

A public entity is not liable for injury caused by its failure to make an inspection, or by reason of making an inadequate or negligent inspection, of any property, other than its property (as defined in subdivision (c) of Section 830), for the purpose of determining whether the property complies with or violates any enactment or contains or constitutes a hazard to health or safety.

818.7. Publication of records concerning person convicted of controlled substance violation; Use by school authorities

No board, commission, or any public officer or employee of the state or of any district, county, city and county, or city is liable for any damage or injury to any person resulting from the publication of any reports, records, prints, or photographs of or concerning any person convicted of violation of any law relating to the use, sale, or possession of controlled substances, when such publication is to school authorities for use in instruction on the subject of controlled substances or to any person when used for the purpose of general

education. However, the name of any person concerning whom any such reports, records, prints, or photographs are used shall be kept confidential and every reasonable effort shall be made to maintain as confidential any information which may tend to identify such person.

818.8. Employee's misrepresentation

A public entity is not liable for an injury caused by misrepresentation by an employee of the public entity, whether or not such misrepresentation be negligent or intentional.

818.9. Immunity from liability for advice given to small claims litigants

A public entity, its employees, and volunteers shall not be liable because of any advice provided to small claims court litigants pursuant to Section 117.18 of the Code of Civil Procedure.

Article 3. Liability of Public Employees

820. Co-extensiveness with liability of private person; Defenses

(a) Except as otherwise provided by statute (including Section 820.2), a public employee is liable for injury caused by his act or omission to the same extent as a private person.
(b) The liability of a public employee established by this part (commencing with Section 814) is subject to any defenses that would be available to the public employee if he were a private person.

820.2. Exercise of discretion

Except as otherwise provided by statute, a public employee is not liable for an injury resulting from his act or omission where the act or omission was the result of the exercise of the discretion vested in him, whether or not such discretion be abused.

820.25. Actions by peace officer or state or local law enforcement official deemed exercise of discretion

(a) For purposes of Section 820.2, the decision of a peace officer, as defined in Sections 830.1 and 830.2 of the Penal Code, or a state or local law enforcement official, to render assistance to a motorist who has not been involved in an accident or to leave the scene after rendering assistance, upon learning of a reasonably apparent emergency requiring his immediate attention elsewhere or upon instructions from a superior to assume duties elsewhere, shall be deemed an exercise of discretion.
(b) The provision in subdivision (a) shall not apply if the act or omission occurred pursuant to the performance of a ministerial duty. For purposes of this section, "ministerial duty" is defined as a plain and mandatory duty involving the execution of a set task and to be performed without the exercise of discretion.

820.4. Non-negligent law execution or enforcement; Absence of immunity for false arrest or imprisonment

A public employee is not liable for his act or omission, exercising due care, in the execution or enforcement of any law. Nothing in this section exonerates a public employee from liability for false arrest or false imprisonment.

820.6. Good faith action under unconstitutional, invalid, or inapplicable enactment

If a public employee acts in good faith, without malice, and under the apparent authority of an enactment that is unconstitutional, invalid or inapplicable, he is not liable for an injury caused thereby except to the extent that he would have been liable had the enactment been constitutional, valid and applicable.

820.8 Act or omission of another person; Absence of immunity from liability for own act or omission

Except as otherwise provided by statute, a public employee is not liable for an injury caused by the act or omission of another person. Nothing in this section exonerates a public employee from liability for injury proximately caused by his own negligent or wrongful act or omission.

820.9. Vicarious liability of specified local government officials

Members of city councils, mayors, members of boards of supervisors, members of school boards, members of governing boards of other local public entities, and members of locally appointed boards and commissions are not vicariously liable for injuries caused by the act or omission of the public entity. Nothing in this section exonerates an official from liability for injury caused by that individual's own wrongful conduct. Nothing in this section affects the immunity of any other public official.

821. Adoption of, or failure to adopt, enactment; Failure to enforce enactment

A public employee is not liable for an injury caused by his adoption of or failure to adopt an enactment or by his failure to enforce an enactment.

821.2. Determination as to issuance, denial, suspension or revocation of license or similar authorization

A public employee is not liable for an injury caused by his issuance, denial, suspension or revocation of, or by his failure or refusal to issue, deny, suspend or revoke, any permit, license, certificate, approval, order, or similar authorization where he is authorized by enactment to determine whether or not such authorization should be issued, denied, suspended or revoked.

821.4. Failure to make any, or adequate, inspection of property

A public employee is not liable for injury caused by his failure to make an inspection, or by reason of making an inadequate or negligent inspection, of any property, other than the property (as defined in subdivision (c) of Section 830) of the public entity employing the public employee, for the purpose of determining whether the property complies with or violates any enactment or contains or constitutes a hazard to health or safety.

821.5. Failure to restrict travel of cargo tank vehicles through tunnels

A public entity or a public employee acting within the scope of his employment is not liable for failing to prohibit or restrict the time that cargo tank vehicles required to display flammable liquid placards may travel through a tunnel.

821.6. Institution or prosecution of judicial or administrative proceeding

A public employee is not liable for injury caused by his instituting or prosecuting any judicial or administrative proceeding within the scope of his employment, even if he acts maliciously and without probable cause.

821.8. Legally authorized entry on property; Limitation on exoneration

A public employee is not liable for an injury arising out of his entry upon any property where such entry is expressly or impliedly authorized by law. Nothing in this section exonerates a public employee from liability for an injury proximately caused by his own negligent or wrongful act or omission.

822. Theft of money from employee's official custody; Absence of immunity from liability for employee's own act or omission

A public employee is not liable for money stolen from his official custody. Nothing in this

section exonerates a public employee from liability if the loss was sustained as a result of his own negligent or wrongful act or omission.

822.2. Misrepresentations by public employees

A public employee acting in the scope of his employment is not liable for an injury caused by his misrepresentation, whether or not such misrepresentation be negligent or intentional, unless he is guilty of actual fraud, corruption or actual malice.

Article 4. Indemnification of Public Employees

825. Duty of public entity to pay judgment, compromise, or settlement

(a) If an employee or former employee of a public entity requests the public entity to defend him against any claim or action against him for an injury arising out of an act or omission occurring within the scope of his employment as an employee of the public entity and such request is made in writing not less than 10 days before the day of trial, and the employee or former employee reasonably cooperates in good faith in the defense of the claim or action, the public entity shall pay any judgment based thereon or any compromise or settlement of the claim or action to which the public entity has agreed.

If the public entity conducts the defense of an employee or former employee against any claim or action with his reasonable good-faith cooperation, the public entity shall pay any judgment based thereon or any compromise or settlement of the claim or action to which the public entity has agreed; but, where the public entity conducted such defense pursuant to an agreement with the employee or former employee reserving the rights of the public entity not to pay the judgment, compromise or settlement until it is established that the injury arose out of an act or omission occurring within the scope of his employment as an employee of the public entity, the public entity is required to pay the judgment, compromise or settlement only if it is established that the injury arose out of an act or omission occurring in the scope of his employment as an employee of the public entity.

Nothing in this section authorizes a public entity to pay that part of a claim or judgment that is for punitive or exemplary damages.

(b) Notwithstanding subdivision (a) or any other provision of law, a public entity, other than the state as defined in Section 900.6, is authorized to pay that part of a judgment that is for punitive or exemplary damages if the governing body of that public entity, acting in its sole discretion, finds all of the following:

(1) The judgment is based on an act or omission of an employee or former employee acting within the course and scope of his or her employment as an employee of the public entity.

(2) At the time of the act giving rise to the liability, the employee or former employee acted, or failed to act, in good faith, without actual malice and in the apparent best interests of the public entity.

(3) Payment of the claim or judgment would be in the best interests of the public entity.

The discovery of the assets of a public entity and the introduction of evidence of the assets of a public entity shall not be permitted in an action in which it is alleged that a public employee is liable for punitive or exemplary damages.

The possibility that a public entity may pay that part of a judgment that is for punitive damages shall not be disclosed in any trial in which it is alleged that a public employee is liable for punitive or exemplary damages, and that disclosure shall be grounds for a mistrial.

(c) Except as provided in subdivision (d), if the provisions of this section are in conflict with the provisions of a memorandum of understanding reached pursuant to Chapter 10 (commencing with Section 3500) of Division 4 of Title 1, the memorandum of understanding shall be controlling without further legislative action, except that if such provisions of a memorandum of understanding require the expenditure of funds, the provisions shall not become effective unless approved by the Legislature in the annual Budget Act.

(d) The subject of payment of punitive damages pursuant to this section or any other provision of law shall not be a subject of meet and confer under the provisions of Chapter 10 (commencing with Section 3500) of Division 4 of Title 1, or pursuant to any other law or authority.

(e) Nothing in this section shall affect the provisions of Section 818 prohibiting the award of punitive damages against a public entity. This section shall not be construed as a waiver of a public entity's immunity from liability for punitive damages under Section 1981, 1983, or 1985 of Title 42 of the United States Code.

825.2. Right of employee or former employee to recover amount of payment from public entity

(a) Subject to subdivision (b), if an employee or former employee of a public entity pays any claim or judgment against him, or any portion thereof, that the public entity is required to pay under Section 825, he is entitled to recover the amount of such payment from the public entity.

(b) If the public entity did not conduct his defense against the action or claim, or if the public entity conducted such defense pursuant to an agreement with him reserving the rights of the public entity against him, an employee or former employee of a public entity may recover from the public entity under subdivision (a) only if he establishes that the act or omission upon which the claim or judgment is based occurred within the scope of his employment as an employee of the public entity and the public entity fails to establish that he acted or failed to act because of actual fraud, corruption or actual malice or that he willfully failed or refused to conduct the defense of the claim or action in good faith or to reasonably cooperate in good faith in the defense conducted by the public entity.

(c) If the provisions of this section are in conflict with the provisions of a memorandum of understanding reached pursuant to Chapter 12 (commencing with Section 3560) of Division 4 of Title 1, the memorandum of understanding shall be controlling without further legislative action, except that if such provisions of a memorandum of understanding require the expenditure of funds, the provisions shall not become effective unless approved by the Legislature in the annual Budget Act.

825.4. Indemnification of public entity paying claim or judgment; When employee not liable to indemnify

Except as provided in Section 825.6, if a public entity pays any claim or judgment against itself or against an employee or former employee of the public entity, or any portion thereof, for an injury arising out of an act or omission of the employee or former employee of the public entity, he is not liable to indemnify the public entity.

825.6 When public entity may recover from employee or former employee

(a) If a public entity pays any claim or judgment, or any portion thereof, either against itself or against an employee or former employee of the public entity, for an injury arising out of an act or omission of the employee or former employee of the public entity, the public entity may recover from the employee or former employee the amount of such payment if he acted or failed to act because of actual fraud, corruption or actual malice or if he willfully failed or refused to conduct the defense of the claim or action in good faith. Except as provided in subdivision (b) or (c), a public entity may not recover any payments made upon a judgment or claim against an employee or former employee if the public entity conducted his defense against the action or claim.

(b) If a public entity pays any claim or judgment, or any portion thereof, against an employee or former employee of the public entity for an injury arising out of his act or omission, and if the public entity conducted his defense against the claim or action pursuant to an agreement with him reserving the rights of the public entity against him, the public entity may recover the amount of such payment from him unless he establishes that the act or omission upon which the claim or judgment is based occurred within the scope of his employment as an employee of

the public entity and the public entity fails to establish that he acted or failed to act because of actual fraud, corruption or actual malice or that he willfully failed or refused to reasonably cooperate in good faith in the defense conducted by the public entity.

(c) If a public entity pays any claim or judgment, or any portion thereof, against an employee or former employee of the public entity for an injury arising out of his act or omission, and if the public entity conducted the defense against the claim or action in the absence of an agreement with him reserving the rights of the public entity against him, the public entity may recover the amount of such payment from him if he willfully failed or refused to reasonably cooperate in good faith in the defense conducted by the public entity.

(d) If the provisions of this section are in conflict with the provisions of a memorandum of understanding reached pursuant to Chapter 12 (commencing with Section 3560) of Division 4 of Title 1, the memorandum of understanding shall be controlling without further legislative action, except that if such provisions of a memorandum of understanding require the expenditure of funds, the provisions shall not become effective unless approved by the Legislature in the annual Budget Act.

Chapter 2. Dangerous Conditions of Public Property

Article 1. General

830. "Dangerous condition"; "Protect against"; "Property of a public entity" and "public property"

As used in this chapter:

(a) "Dangerous condition" means a condition of property that creates a substantial (as distinguished from a minor, trivial or insignificant) risk of injury when such property or adjacent property is used with due care in a manner in which it is reasonably foreseeable that it will be used.

(b) "Protect against" includes repairing, remedying or correcting a dangerous condition, providing safeguards against a dangerous condition, or warning of a dangerous condition.

(c) "Property of a public entity" and "public property" mean real or personal property owned or controlled by the public entity, but do not include easements, encroachments and other property that are located on the property of the public entity but are not owned or controlled by the public entity.

830.2. When condition not dangerous; Court's determination from evidence

A condition is not a dangerous condition within the meaning of this chapter if the trial or appellate court, viewing the evidence most favorably to the plaintiff, determines as a matter of law that the risk created by the condition was of such a minor, trivial or insignificant nature in view of the surrounding circumstances that no reasonable person would conclude that the condition created a substantial risk of injury when such property or adjacent property was used with due care in a manner in which it was reasonably foreseeable that it would be used.

830.4. Failure to provide traffic control signals, signs, or markings

A condition is not a dangerous condition within the meaning of this chapter merely because of the failure to provide regulatory traffic control signals, stop signs, yield right-of-way signs, or speed restriction signs, as described by the Vehicle Code, or distinctive roadway markings as described in Section 21460 of the Vehicle Code.

830.5. Evidence not showing that public property was in dangerous condition; Happening of accident; Protective measure after injury

(a) Except where the doctrine of res ipsa loquitur is applicable, the happening of the accident which results in the injury is not in and of itself evidence that public property was in a dangerous condition.

(b) The fact that action was taken after an injury occurred to protect against a condition of public property is not evidence that the public property was in a dangerous condition at the time of the injury.

830.6. Liability of public entity or employee; Injury caused by construction plan or design or improvement

Neither a public entity nor a public employee is liable under this chapter for an injury caused by the plan or design of a construction of, or an improvement to, public property where such plan or design has been approved in advance of the construction or improvement by the legislative body of the public entity or by some other body or employee exercising discretionary authority to give such approval or where such plan or design is prepared in conformity with standards previously so approved, if the trial or appellate court determines that there is any substantial evidence upon the basis of which (a) a reasonable public employee could have adopted the plan or design or the standards therefore or (b) a reasonable legislative body or other body or employee could have approved the plan or design or the standards therefore. Notwithstanding notice that constructed or improved public property may no longer be in conformity with a plan or design or a standard which reasonably could be approved by the legislative body or other body or employee, the immunity provided by this section shall continue for a reasonable period of time sufficient to permit the public entity to obtain funds for and carry out remedial work necessary to allow such public property to be in conformity with a plan or design approved by the legislative body of the public entity or other body or employee or with a plan or design in conformity with a standard previously approved by such legislative body or other body or employee. In the event that the public entity is unable to remedy such public property because of practical impossibility or lack of sufficient funds, the immunity provided by this section shall remain so long as such public entity shall reasonably attempt to provide adequate warnings of the existence of the condition not conforming to the approved plan or design or to the approved standard. However, where a person fails to heed such warning or occupies public property despite such warning, such failure or occupation shall not in itself constitute an assumption of the risk of the danger indicated by the warning.

830.8. Failure to provide traffic signals, signs, or markings; Danger not reasonably foreseeable

Neither a public entity nor a public employee is liable under this chapter for an injury caused by the failure to provide traffic or warning signals, signs, markings or devices described in the Vehicle Code. Nothing in this section exonerates a public entity or public employee from liability for injury proximately caused by such failure if a signal, sign, marking or device (other than one described in Section 830.4) was necessary to warn of a dangerous condition which endangered the safe movement of traffic and which would not be reasonably apparent to, and would not have been anticipated by, a person exercising due care.

830.9. Traffic signals controlled by emergency vehicle

Neither a public entity nor a public employee is liable for an injury caused by the operation or nonoperation of official traffic control signals when controlled by an emergency vehicle in accordance with the provisions of subdivision (a) of Section 25258 of the Vehicle Code.

831. Weather conditions affecting streets and highways; Danger not reasonably foreseeable

Neither a public entity nor a public employee is liable for an injury caused by the effect on the use of streets and highways of weather conditions as such. Nothing in this section exonerates a public entity or public employee from liability for injury proximately caused by such effect if it would not be reasonably apparent to, and would not be anticipated by, a person exercising due care. For the purpose of this section, the effect on the use of streets

and highways of weather conditions includes the effect of fog, wind, rain, flood, ice or snow but does not include physical damage to or deterioration of streets and highways resulting from weather conditions.

831.2. Natural condition of unimproved public property

Neither a public entity nor a public employee is liable for an injury caused by a natural condition of any unimproved public property, including but not limited to any natural condition of any lake, stream, bay, river or beach.

831.21. Public beaches as in natural condition and unimproved

(a) Public beaches shall be deemed to be in a natural condition and unimproved notwithstanding the provision or absence of public safety services such as lifeguards, police or sheriff patrols, medical services, fire protection services, beach cleanup services, or signs. The provisions of this section shall apply only to natural conditions of public property and shall not limit any liability or immunity that may otherwise exist pursuant to this division.

(b) This section shall only be applicable to causes of action based upon acts or omissions occurring on or after January 1, 1988.

831.25. Liability for property damage or emotional distress off public entity's property resulting from land failure of unimproved public property; "Land failure"

(a) Neither a public entity nor a public employee is liable for any damage or injury to property, or for emotional distress unless the plaintiff has suffered substantial physical injury, off the public entity's property caused by land failure of any unimproved public property if the land failure was caused by a natural condition of the unimproved public property.

(b) For the purposes of this section, a natural condition exists and property shall be deemed unimproved notwithstanding the intervention of minor improvements made for the preservation or prudent management of the property in its unimproved state that did not contribute to the land failure.

(c) As used in this section, "land failure" means any movement of land, including a landslide, mudslide, creep, subsidence, and any other gradual or rapid movement of land.

(d) This section shall not benefit any public entity or public employee who had actual notice of probable damage that is likely to occur outside the public property because of land failure and who fails to give a reasonable warning of the danger.

(e) Nothing in this section shall limit the immunity provided by Section 831.2.

(f) Nothing in this section creates a duty of care or basis of liability for damage or injury to property or of liability for emotional distress.

831.3. Liability for injury on nondedicated road

Neither a public entity nor a public employee is liable for any injury occurring on account of the grading or the performance of other maintenance or repair on or reconstruction or replacement of any road which has not officially been accepted as a part of the road system under the jurisdiction of the public entity if the grading, maintenance, repair, or reconstruction or replacement is performed with reasonable care and leaves the road in no more dangerous or unsafe condition than it was before the work commenced. No act of grading, maintenance, repair, or reconstruction or replacement within the meaning of this section shall be deemed to give rise to any duty of the public entity to continue any grading, maintenance, repair, or reconstruction or replacement on any road not a part of the road system under the public entity's jurisdiction. As used in this section "reconstruction or replacement" means reconstruction or replacement performed pursuant to Article 3 (commencing with Section 1160) of Chapter 4 of Division 2 of the Streets and Highways Code.

831.4. Unpaved road providing access to fishing, hunting, or recreational areas; Trails

A public entity, public employee, or a grantor of a public easement to a public entity for any of the following purposes, is not liable for an injury caused by a condition of:

(a) Any unpaved road which provides access to fishing, hunting, camping, hiking, riding, including animal and all types of vehicular riding, water sports, recreational or scenic areas and which is not a (1) city street or highway or (2) county, state or federal highway or (3) public street or highway of a joint highway district, boulevard district, bridge and highway district or similar district formed for the improvement or building of public streets or highways.

(b) Any trail used for the above purposes.

(c) Any paved trail, walkway, path, or sidewalk on an easement of way which has been granted to a public entity, which easement provides access to any unimproved property, so long as such public entity shall reasonably attempt to provide adequate warnings of the existence of any condition of the paved trail, walkway, path, or sidewalk which constitutes a hazard to health or safety. Warnings required by this subdivision shall only be required where pathways are paved, and such requirement shall not be construed to be a standard of care for any unpaved pathways or roads.

831.5. Public access programs by private nonprofit entities; "Public entity"; "Public employee"

(a) The Legislature declares that innovative public access programs, such as agreements with public land trusts, can provide effective and responsible alternatives to costly public acquisition programs. The Legislature therefore declares that it is beneficial to the people of this state to encourage private nonprofit entities such as public land trusts to carry out programs that preserve open space or increase opportunities for the public to enjoy access to and use of natural resources if the programs are consistent (1) with public safety, (2) with the protection of the resources, and (3) with public and private rights.

(b) For the purposes of Sections 831.2, 831.4, and 831.7, "public entity" includes a public land trust which meets all of the following:

(1) Is a nonprofit organization existing under the provisions of Section 501(c) of the United States Internal Revenue Code.

(2) Has specifically set forth in its articles of incorporation, as among its principal charitable purposes, the conservation of land for public access, agricultural, scientific, historical, educational, recreational, scenic, or open space opportunities.

(3) Has entered into an agreement with the State Coastal Conservancy for lands located within the coastal zone, as defined in Section 31006 of the Public Resources Code, with the California Tahoe Conservancy or its designee for lands located within the Lake Tahoe region, as defined in subdivision (c) of Section 66953 of the Government Code, or with the State Public Works Board or its designee for lands not located within the coastal zone or the Lake Tahoe region, on such terms and conditions as are mutually agreeable, requiring the public land trust to hold the lands or, where appropriate, to provide nondiscriminatory public access consistent with the protection and conservation of either coastal or other natural resources, or both. The conservancy or the board, as appropriate, shall periodically review the agreement and determine whether the public land trust is in compliance with the terms and conditions. In the event the conservancy or the board determines that the public land trust is not in substantial compliance with the agreement, the conservancy or the board shall cancel the agreement, and the provisions of Sections 831.2, 831.4, and 831.7, shall no longer apply with regard to that public land trust.

(c) For the purposes of Sections 831.2, 831.4, and 831.7, "public employee" includes an officer, authorized agent, or employee of any public land trust which is a public entity.

831.6. Unimproved and unoccupied portions of ungranted tidelands, beds of navigable waters, etc.; Unsold portions of school lands

Neither the State nor an employee of the State is liable under this chapter for any injury caused by a condition of the unimproved and unoccupied portions of:

- (a) The ungranted tidelands and submerged lands, and the beds of navigable rivers, streams, lakes, bays, estuaries, inlets and straits, owned by the State.
- (b) The unsold portions of the 16th and 36th sections of school lands, the unsold portions of the 500,000 acres granted to the State for school purposes, and the unsold portions of the listed lands selected of the United States in lieu of the 16th and 36th sections and losses to the school grant.

831.7. Liability to participant in or spectator to hazardous recreational activity

(a) Neither a public entity nor a public employee is liable to any person who participates in a hazardous recreational activity, including any person who assists the participant, or to any spectator who knew or reasonably should have known that the hazardous recreational activity created a substantial risk of injury to himself or herself and was voluntarily in the place of risk, or having the ability to do so failed to leave, for any damage or injury to property or persons arising out of that hazardous recreational activity.

(b) As used in this section, "hazardous recreational activity" means a recreational activity conducted on property of a public entity which creates a substantial (as distinguished from a minor, trivial, or insignificant) risk of injury to a participant or a spectator.

"Hazardous recreational activity" also means:

- (1) Water contact activities, except diving, in places where or at a time when lifeguards are not provided and reasonable warning thereof has been given or the injured party should reasonably have known that there was no lifeguard provided at the time.
- (2) Any form of diving into water from other than a diving board or diving platform, or at any place or from any structure where diving is prohibited and reasonable warning thereof has been given.
- (3) Animal riding, including equestrian competition, archery, bicycle racing or jumping, boating, cross-country and downhill skiing, hang gliding, kayaking, motorized vehicle racing, off-road motorcycling or four-wheel driving of any kind, orienteering, pistol and rifle shooting, rock climbing, rocketeering, rodeo, spelunking, sky diving, sport parachuting, body contact sports (i.e., sports in which it is reasonably foreseeable that there will be rough bodily contact with one or more participants), surfing, trampolining, tree climbing, tree rope swinging, water skiing, white water rafting, and wind surfing.
- (c) Notwithstanding the provisions of subdivision (a), this section does not limit liability which would otherwise exist for any of the following:
 - (1) Failure of the public entity or employee to guard or warn of a known dangerous condition or of another hazardous recreational activity known to the public entity or employee that is not reasonably assumed by the participant as inherently a part of the hazardous recreational activity out of which the damage or injury arose.
 - (2) Damage or injury suffered in any case where permission to participate in the hazardous recreational activity was granted for a specific fee. For the purpose of this paragraph, a "specific fee" does not include a fee or consideration charged for a general purpose such as a general park admission charge, a vehicle entry or parking fee, or an administrative or group use application or permit fee, as distinguished from a specific fee charged for participation in the specific hazardous recreational activity out of which the damage or injury arose.
 - (3) Injury suffered to the extent proximately caused by the negligent failure of the public entity or public employee to properly construct or maintain in good repair any structure, recreational equipment or machinery, or substantial work of improvement utilized in the hazardous recreational activity out of which the damage or injury arose.
 - (4) Damage or injury suffered in any case where the public entity or employee recklessly or

with gross negligence promoted the participation in or observance of a hazardous recreational activity. For purposes of this paragraph, promotional literature or a public announcement or advertisement which merely describes the available facilities and services on the property does not in itself constitute a reckless or grossly negligent promotion.

(5) An act of gross negligence by a public entity or a public employee which is the proximate cause of the injury.

Nothing in this subdivision creates a duty of care or basis of liability for personal injury or for damage to personal property.

(d) Nothing in this section shall limit the liability of an independent concessionaire, or any person or organization other than the public entity, whether or not the person or organization has a contractual relationship with the public entity to use the public property, for injuries or damages suffered in any case as a result of the operation of a hazardous recreational activity on public property by the concessionaire, person, or organization.

831.8. Condition of reservoir; Condition of canals, conduits, or drains; When exoneration from liability absent

(a) Subject to subdivisions (c) and (d), neither a public entity nor a public employee is liable under this chapter for an injury caused by the condition of a reservoir if at the time of the injury the person injured was using the property for any purpose other than that for which the public entity intended or permitted the property to be used.

(b) Subject to subdivisions (c) and (d), neither an irrigation district nor an employee thereof nor the State nor a state employee is liable under this chapter for an injury caused by the condition of canals, conduits or drains used for the distribution of water if at the time of the injury the person injured was using the property for any purpose other than that for which the district or State intended it to be used.

(c) Nothing in this section exonerates a public entity or a public employee from liability for injury proximately caused by a dangerous condition of property if:

(1) The injured person was not guilty of a criminal offense under Article 1 (commencing with Section 552) of Chapter 12 of Title 13 of Part I of the Penal Code in entering on or using the property;

(2) The condition created a substantial and unreasonable risk of death or serious bodily harm when such property or adjacent property was used with due care in a manner in which it was reasonably foreseeable that it would be used;

(3) The dangerous character of the condition was not reasonably apparent to, and would not have been anticipated by, a mature, reasonable person using the property with due care; and

(4) The public entity or the public employee had actual knowledge of the condition and knew or should have known of its dangerous character a sufficient time prior to the injury to have taken measures to protect against the condition.

(d) Nothing in this section exonerates a public entity or a public employee from liability for injury proximately caused by a dangerous condition of property if:

(1) The person injured was less than 12 years of age;

(2) The dangerous condition created a substantial and unreasonable risk of death or serious bodily harm to children under 12 years of age using the property or adjacent property with due care in a manner in which it was reasonably foreseeable that it would be used;

(3) The person injured, because of his immaturity, did not discover the condition or did not appreciate its dangerous character; and

(4) The public entity or the public employee had actual knowledge of the condition and knew or should have known of its dangerous character a sufficient time prior to the injury to have taken measures to protect against the condition.

Article 2. Liability of Public Entities

835. When public entity liable for injury caused by dangerous condition of property
Except as provided by statute, a public entity is liable for injury caused by a dangerous condition of its property if the plaintiff establishes that the property was in a dangerous condition at the time of the injury, that the injury was proximately caused by the dangerous condition, that the dangerous condition created a reasonably foreseeable risk of the kind of injury which was incurred, and that either:

- (a) A negligent or wrongful act or omission of an employee of the public entity within the scope of his employment created the dangerous condition; or
- (b) The public entity had actual or constructive notice of the dangerous condition under Section 835.2 a sufficient time prior to the injury to have taken measures to protect against the dangerous condition.

835.2. What constitutes actual notice; Requisite showing of constructive notice; Admissible evidence

- (a) A public entity had actual notice of a dangerous condition within the meaning of subdivision (b) of Section 835 if it had actual knowledge of the existence of the condition and knew or should have known of its dangerous character.
- (b) A public entity had constructive notice of a dangerous condition within the meaning of subdivision (b) of Section 835 only if the plaintiff establishes that the condition had existed for such a period of time and was of such an obvious nature that the public entity, in the exercise of due care, should have discovered the condition and its dangerous character. On the issue of due care, admissible evidence includes but is not limited to evidence as to:
 - (1) Whether the existence of the condition and its dangerous character would have been discovered by an inspection system that was reasonably adequate (considering the practicability and cost of inspection weighed against the likelihood and magnitude of the potential danger to which failure to inspect would give rise) to inform the public entity whether the property was safe for the use or uses for which the public entity used or intended others to use the public property and for uses that the public entity actually knew others were making of the public property or adjacent property.
 - (2) Whether the public entity maintained and operated such an inspection system with due care and did not discover the condition.

835.4 Conditions causing injury for which public entity not liable; Reasonable act or omission

- (a) A public entity is not liable under subdivision (a) of Section 835 for injury caused by a condition of its property if the public entity establishes that the act or omission that created the condition was reasonable. The reasonableness of the act or omission that created the condition shall be determined by weighing the probability and gravity of potential injury to persons and property foreseeably exposed to the risk of injury against the practicability and cost of taking alternative action that would not create the risk of injury or of protecting against the risk of injury.
- (b) A public entity is not liable under subdivision (b) of Section 835 for injury caused by a dangerous condition of its property if the public entity establishes that the action it took to protect against the risk of injury created by the condition or its failure to take such action was reasonable. The reasonableness of the action or inaction of the public entity shall be determined by taking into consideration the time and opportunity it had to take action and by weighing the probability and gravity of potential injury to persons and property foreseeably exposed to the risk of injury against the practicability and cost of protecting against the risk of such injury.

Article 3. Liability of Public Employees

840. Property conditions causing injury for which employee not liable; Available immunity and defenses

Except as provided in this article, a public employee is not liable for injury caused by a condition of public property where such condition exists because of any act or omission of such employee within the scope of his employment. The liability established by this article is subject to any immunity of the public employee provided by statute and is subject to any defenses that would be available to the public employee if he were a private person.

840.2. Conditions causing injury for which employee liable; Requisite showing by plaintiff

An employee of a public entity is liable for injury caused by a dangerous condition of public property if the plaintiff establishes that the property of the public entity was in a dangerous condition at the time of the injury, that the injury was proximately caused by the dangerous condition, that the dangerous condition created a reasonably foreseeable risk of the kind of injury which was incurred, and that either:

- (a) The dangerous condition was directly attributable wholly or in substantial part to a negligent or wrongful act of the employee and the employee had the authority and the funds and other means immediately available to take alternative action which would not have created the dangerous condition; or
- (b) The employee had the authority and it was his responsibility to take adequate measures to protect against the dangerous condition at the expense of the public entity and the funds and other means for doing so were immediately available to him, and he had actual or constructive notice of the dangerous condition under Section 840.4 a sufficient time prior to the injury to have taken measures to protect against the dangerous condition.

840.4. What constitutes actual notice of dangerous condition; Requisite showing for establishment of constructive notice

- (a) A public employee had actual notice of a dangerous condition within the meaning of subdivision (b) of Section 840.2 if he had actual personal knowledge of the existence of the condition and knew or should have known of its dangerous character.
- (b) A public employee had constructive notice of a dangerous condition within the meaning of subdivision (b) of Section 840.2 only if the plaintiff establishes (1) that the public employee had the authority and it was his responsibility as a public employee to inspect the property of the public entity or to see that inspections were made to determine whether dangerous conditions existed in the public property, (2) that the funds and other means for making such inspections or for seeing that such inspections were made were immediately available to the public employee, and (3) that the dangerous condition had existed for such a period of time and was of such an obvious nature that the public employee, in the exercise of his authority and responsibility with due care, should have discovered the condition and its dangerous character.

840.6. Absence of liability for condition resulting in injury where act or omission creating condition was reasonable

- (a) A public employee is not liable under subdivision (a) of Section 840.2 for injury caused by a dangerous condition of public property if he establishes that the act or omission that created the condition was reasonable. The reasonableness of the act or omission that created the condition shall be determined by weighing the probability and gravity of potential injury to persons and property foreseeably exposed to the risk of injury against the practicability and cost of taking alternative action that would not create the risk of injury or of protecting against the risk of injury.
- (b) A public employee is not liable under subdivision (b) of Section 840.2 for injury caused by a dangerous condition of public property if he establishes that the action taken to protect

against the risk of injury created by the condition or the failure to take such action was reasonable. The reasonableness of the inaction or action shall be determined by taking into consideration the time and opportunity the public employee had to take action and by weighing the probability and gravity of potential injury to persons and property foreseeably exposed to the risk of injury against the practicability and cost of protecting against the risk of such injury.

Chapter 3. Police and Correctional Activities

844. "Prisoner"

As used in this chapter, "prisoner" includes an inmate of a prison, jail or penal or correctional facility.

844.6. Injury by or to prisoner

(a) Notwithstanding any other provision of this part, except as provided in this section and in Sections 814, 814.2, 845.4, and 845.6, or in Title 2.1 (commencing with Section 3500) of Part 3 of the Penal Code, a public entity is not liable for:

(1) An injury proximately caused by any prisoner.

(2) An injury to any prisoner.

(b) Nothing in this section affects the liability of a public entity under Article 1 (commencing with Section 17000) of Chapter 1 of Division 9 of the Vehicle Code.

(c) Except for an injury to a prisoner, nothing in this section prevents recovery from the public entity for an injury resulting from the dangerous condition of public property under Chapter 2 (commencing with Section 830) of this part.

(d) Nothing in this section exonerates a public employee from liability for injury proximately caused by his negligent or wrongful act or omission. The public entity may but is not required to pay any judgment, compromise or settlement, or may but is not required to indemnify any public employee, in any case where the public entity is immune from liability under this section; except that the public entity shall pay, as provided in Article 4 (commencing with Section 825) of Chapter 1 of this part, any judgment based on a claim against a public employee who is lawfully engaged in the practice of one of the healing arts under any law of this state for malpractice arising from an act or omission in the scope of his employment, and shall pay any compromise or settlement of a claim or action, based on such malpractice, to which the public entity has agreed.

845. Failure to provide any or adequate police protection

Neither a public entity nor a public employee is liable for failure to establish a police department or otherwise provide police protection service or, if police protection service is provided, for failure to provide sufficient police protection service.

845.2. Failure to provide prison, correctional facility, equipment, personnel, etc.

Except as provided in Chapter 2 (commencing with Section 830), neither a public entity nor a public employee is liable for failure to provide a prison, jail or penal or correctional facility or, if such facility is provided, for failure to provide sufficient equipment, personnel or facilities therein.

845.4. Interference with prisoner's right to judicial determination as to legality of confinement

Neither a public entity nor a public employee acting within the scope of his employment is liable for interfering with the right of a prisoner to obtain a judicial determination or review of the legality of his confinement; but a public employee, and the public entity where the employee is acting within the scope of his employment, is liable for injury proximately

caused by the employee's intentional and unjustifiable interference with such right, but no cause of action for such injury shall be deemed to accrue until it has first been determined that the confinement was illegal.

845.6. Failure to furnish prisoner medical care

Neither a public entity nor a public employee is liable for injury proximately caused by the failure of the employee to furnish or obtain medical care for a prisoner in his custody; but, except as otherwise provided by Sections 855.8 and 856, a public employee, and the public entity where the employee is acting within the scope of his employment, is liable if the employee knows or has reason to know that the prisoner is in need of immediate medical care and he fails to take reasonable action to summon such medical care. Nothing in this section exonerates a public employee who is lawfully engaged in the practice of one of the healing arts under any law of this state from liability for injury proximately caused by malpractice or exonerates the public entity from its obligation to pay any judgment, compromise, or settlement that it is required to pay under subdivision (d) of Section 844.6.

845.8. Injury from prisoner's parole or release; Injury caused by escaping or escaped prisoner, arrestee, etc.

Neither a public entity nor a public employee is liable for:

- (a) Any injury resulting from determining whether to parole or release a prisoner or from determining the terms and conditions of his parole or release or from determining whether to revoke his parole or release.
- (b) Any injury caused by:
 - (1) An escaping or escaped prisoner;
 - (2) An escaping or escaped arrested person; or
 - (3) A person resisting arrest.

846. Injury from failure to make arrest or retain person in custody

Neither a public entity nor a public employee is liable for injury caused by the failure to make an arrest or by the failure to retain an arrested person in custody.

Chapter 4. Fire Protection

850. Failure to provide fire protection service

Neither a public entity nor a public employee is liable for failure to establish a fire department or otherwise to provide fire protection service.

850.2. Failure to maintain sufficient fire protection personnel or facilities

Neither a public entity that has undertaken to provide fire protection service, nor an employee of such a public entity, is liable for any injury resulting from the failure to provide or maintain sufficient personnel, equipment or other fire protection facilities.

850.4. Injury caused in fighting fires and from condition of fire fighting equipment or facilities

Neither a public entity, nor a public employee acting in the scope of his employment, is liable for any injury resulting from the condition of fire protection or firefighting equipment or facilities or except as provided in Article 1 (commencing with Section 17000) of Chapter 1 of Division 9 of the Vehicle Code, for any injury caused in fighting fires.

850.6. Act or omission of employee of public entity performing service outside fire protection area

Whenever a public entity provides fire protection or firefighting service outside of the area

regularly served and protected by the public entity providing such service, the public entity providing such service is liable for any injury for which liability is imposed by statute caused by its act or omission or the act or omission of its employee occurring in the performance of such fire protection or firefighting service. Notwithstanding any other law, the public entity receiving such fire protection or such firefighting service is not liable for any act or omission of the public entity providing the service or for any act or omission of an employee of the public entity providing the service; but the public entity providing such service and the public entity receiving such service may by agreement determine the extent, if any, to which the public entity receiving such service will be required to indemnify the public entity providing the service.

Notwithstanding any other provision of this section, any claims against the state shall be presented to the State Board of Control in accordance with Part 3 (commencing with Section 900) and Part 4 (commencing with Section 940) of Division 3.6 of Title 1 of the Government Code.

850.8. Transportation of person injured by fire, etc.

Any member of an organized fire department, fire protection district, or other firefighting unit of either the state or any political subdivision, any employee of the Department of Forestry, or any other public employee when acting in the scope of his or her employment, may transport or arrange for the transportation of any person injured by a fire, or by a fire protection operation, to a physician and surgeon or hospital if the injured person does not object to the transportation.

Neither a public entity nor a public employee is liable for any injury sustained by the injured person as a result of or in connection with that transportation or for any medical, ambulance or hospital bills incurred by or in behalf of the injured person or for any other damages, but a public employee is liable for injury proximately caused by his willful misconduct in transporting the injured person or arranging for the transportation.

Chapter 5. Medical, Hospital and Public Health Activities

854. "Medical facility"

As used in this chapter, unless the context otherwise requires, "medical facility" includes a hospital, infirmary, clinic, dispensary, mental institution, or similar facility.

854.2. "Mental institution"

As used in this chapter, "mental institution" means any state hospital for the care and treatment of the mentally disordered or the mentally retarded, the California Rehabilitation Center referred to in Section 3300 of the Welfare and Institutions Code, or any county psychiatric hospital.

854.3. "County psychiatric hospital"

As used in this chapter, "county psychiatric hospital" means the hospital, ward, or facility provided by the county pursuant to the provisions of Section 7100 of the Welfare and Institutions Code.

854.4. "Mental illness or addiction"

As used in this chapter, "mental illness or addiction" means any condition for which a person may be detained, cared for, or treated in a mental institution, in a facility designated by a county pursuant to Chapter 2 (commencing with Section 5150) of Part 1 of Division 5 of the Welfare and Institutions Code, or in a similar facility.

854.5. "Confine"

As used in this chapter, "confine" includes admit, commit, place, detain, or hold in custody.

854.8. Injury by or to person committed to mental institution

(a) Notwithstanding any other provision of this part, except as provided in this section and in Sections 814, 814.2, 855, and 855.2, a public entity is not liable for:

(1) An injury proximately caused by a patient of a mental institution.

(2) An injury to an inpatient of a mental institution.

(b) Nothing in this section affects the liability of a public entity under Article 1 (commencing with Section 17000) of Chapter 1 of Division 9 of the Vehicle Code.

(c) Except for an injury to an inpatient of a mental institution, nothing in this section prevents recovery from the public entity for an injury resulting from the dangerous condition of public property under Chapter 2 (commencing with Section 830) of this part.

(d) Nothing in this section exonerates a public employee from liability for injury proximately caused by his negligent or wrongful act or omission. The public entity may but is not required to pay any judgment, compromise or settlement, or may but is not required to indemnify any public employee, in any case where the public entity is immune from liability under this section; except that the public entity shall pay, as provided in Article 4 (commencing with Section 825) of Chapter 1 of this part, any judgment based on a claim against a public employee who is lawfully engaged in the practice of one of the healing arts under any law of this state for malpractice arising from an act or omission in the scope of his employment, and shall pay any compromise or settlement of a claim or action, based on such malpractice, to which the public entity has agreed.

855. Injury from failure of public entity to provide adequate equipment, personnel or facilities

(a) A public entity that operates or maintains any medical facility that is subject to regulation by the State Department of Health Services, Social Services, Developmental Services, or Mental Health is liable for injury proximately caused by the failure of the public entity to provide adequate or sufficient equipment, personnel or facilities required by any statute or any regulation of the State Department of Health Services, Social Services, Developmental Services, or Mental Health prescribing minimum standards for equipment, personnel or facilities, unless the public entity establishes that it exercised reasonable diligence to comply with the applicable statute or regulation.

(b) A public entity that operates or maintains any medical facility that is not subject to regulation by the State Department of Health Services, Social Services, Developmental Services, or Mental Health is liable for injury proximately caused by the failure of the public entity to provide adequate or sufficient equipment, personnel or facilities substantially equivalent to those required by any statute or any regulation of the State Department of Health Services, Social Services, Developmental Services, or Mental Health prescribing minimum standards for equipment, personnel or facilities applicable to a public medical facility of the same character and class, unless the public entity establishes that it exercised reasonable diligence to conform with such minimum standards.

(c) Nothing in this section confers authority upon, or augments the authority of, the State Department of Health Services, Social Services, Developmental Services, or Mental Health to adopt, administer or enforce any regulation. Any regulation establishing minimum standards for equipment, personnel or facilities in any medical facility operated or maintained by a public entity, to be effective, must be within the scope of authority conferred by law.

855.2. Interference with inmate's right to judicial determination as to legality of confinement

Neither a public entity nor a public employee acting within the scope of his employment is liable for interfering with the right of an inmate of a medical facility operated or maintained by a public entity to obtain a judicial determination or review of the legality of his confinement; but a public employee, and the public entity where the employee is acting within the scope of his employment, is liable for injury proximately caused by the employee's

intentional and unjustifiable interference with such right, but no cause of action for such injury shall be deemed to accrue until it has first been determined that the confinement was illegal.

855.4. Decision as to performance or nonperformance of disease prevention, etc.; Nonnegligent execution of decision

(a) Neither a public entity nor a public employee is liable for an injury resulting from the decision to perform or not to perform any act to promote the public health of the community by preventing disease or controlling the communication of disease within the community if the decision whether the act was or was not to be performed was the result of the exercise of discretion vested in the public entity or the public employee, whether or not such discretion be abused.

(b) Neither a public entity nor a public employee is liable for an injury caused by an act or omission in carrying out with due care a decision described in subdivision (a).

855.6. Injury from failure to make any or adequate physical or mental examination

Except for an examination or diagnosis for the purpose of treatment, neither a public entity nor a public employee acting within the scope of his employment is liable for injury caused by the failure to make a physical or mental examination, or to make an adequate physical or mental examination, of any person for the purpose of determining whether such person has a disease or physical or mental condition that would constitute a hazard to the health or safety of himself or others.

855.8. Diagnosis and treatment of mental illness or addiction

(a) Neither a public entity nor a public employee acting within the scope of his employment is liable for injury resulting from diagnosing or failing to diagnose that a person is afflicted with mental illness or addiction or from failing to prescribe for mental illness or addiction.

(b) A public employee acting within the scope of his employment is not liable for administering with due care the treatment prescribed for mental illness or addiction.

(c) Nothing in this section exonerates a public employee who has undertaken to prescribe for mental illness or addiction from liability for injury proximately caused by his negligence or by his wrongful act in so prescribing.

(d) Nothing in this section exonerates a public employee from liability for injury proximately caused by his negligent or wrongful act or omission in administering any treatment prescribed for mental illness or addiction.

856. Determination as to confinement for mental illness or addiction; Parole, leave of absence, or release

(a) Neither a public entity nor a public employee acting within the scope of his employment is liable for any injury resulting from determining in accordance with any applicable enactment:

(1) Whether to confine a person for mental illness or addiction.

(2) The terms and conditions of confinement for mental illness or addiction.

(3) Whether to parole, grant a leave of absence to, or release a person confined for mental illness or addiction.

(b) A public employee is not liable for carrying out with due care a determination described in subdivision (a).

(c) Nothing in this section exonerates a public employee from liability for injury proximately caused by his negligent or wrongful act or omission in carrying out or failing to carry out:

(1) A determination to confine or not to confine a person for mental illness or addiction.

(2) The terms or conditions of confinement of a person for mental illness or addiction.

(3) A determination to parole, grant a leave of absence to, or release a person confined for mental illness or addiction.

856.2. Injury or death when person confined for mental illness or addiction escapes

(a) Neither a public entity nor a public employee is liable for:

(1) An injury caused by an escaping or escaped person who has been confined for mental illness or addiction.

(2) An injury to, or the wrongful death of, an escaping or escaped person who has been confined for mental illness or addiction.

(b) Nothing in this section exonerates a public employee from liability:

(1) If he acted or failed to act because of actual fraud, corruption, or actual malice.

(2) For injuries inflicted as a result of his own negligent or wrongful act or omission on an escaping or escaped mental patient in recapturing him.

856.4. Failure to admit person to medical facility

Except as provided in Section 815.6, neither a public entity nor a public employee acting in the scope of his employment is liable for an injury resulting from the failure to admit a person to a public medical facility.

856.6. Exemption from liability for participation in influenza immunization program

(a) A public entity, public employee, or volunteer, participating in the National Influenza Program of 1976, shall not be liable for an injury caused by an act or omission in the promotion of a community program or the administration of vaccine in a community program, including the residual effects of the vaccine, unless the act or omission constitutes willful misconduct.

(b) All promotions of a community program and oral and written information provided for purposes of consent to a person requesting inoculation shall contain notice of the provisions of subdivision (a) of this section. In the event the person to be inoculated is a minor, the parents or legal guardian of said minor must be informed orally or in writing of the provisions of subdivision (a) of this section and said parents or legal guardian must consent in writing to the inoculation of said minor person. The State Department of Health shall prescribe a form to be used in community programs which notifies a person of the provisions of subdivision (a) and contains a provision by which the person acknowledges that he has been so notified and understands the legal effect of the subdivision.

(c) As used in the section:

(1) "Community program" means a public program conducted by a state, city, county, or district health agency under the National Influenza Program of 1976 or a public or private organization which has entered into a contract with a state, city, county, or district health agency, with the approval of the State Department of Health, to provide services pursuant to the National Influenza Program of 1976.

(2) "Volunteer" means a licensed health professional, licensed health facility, organization, or individual participating in a community program.

(d) Notwithstanding any other provision of law, an individual authorized by the State Department of Health may administer influenza vaccine under the supervision of a licensed health professional in a community program using a jet injection apparatus.

Chapter 6. Administration of Tax Laws

860. "Tax"

As used in this chapter, "tax" includes a tax, assessment, fee or charge.

860.2. Acts or omissions not imposing liability

A taxpayers' action against the Franchise Tax Board for negligence, slander of title and interference with credit relations arising out of a state income tax proposed assessment and tax lien placed on plaintiffs' property was barred by Gov. Code, section 860.2, providing that

neither a public entity nor a public employee is liable for an injury caused by instituting any judicial or administrative proceeding or action for or incidental to the assessment or collection of a tax, or an act or omission in the interpretation or application of any law relating to a tax. The clear and unambiguous language of the statute precluded its being construed to provide immunity for discretionary acts only, and not for ministerial acts. When statutory language is clear and unambiguous there is no need for construction, and courts should not indulge in it. Because plaintiffs filed three complaints based on essentially the same facts, and defendant was immune from liability under those facts, the trial court did not abuse its discretion in denying plaintiff's leave to amend after sustaining defendant's demurrer. *Mitchell v. Franchise Tax Board* (1986, 1st Dist) 183 Cal App 3d 1133, 228 Cal Rptr 750.

860.4. Inapplicability of chapter on tax refund, adjustment, etc.

Nothing in this chapter affects any law relating to refund, rebate, exemption, cancellation, amendment or adjustment of taxes.

Chapter 7. Use of Pesticides

862. Liability for injuries caused by use of "pesticide"

(a) As used in this section, "pesticide" means:

- (1) An "economic poison" as defined in Section 12753 of the Agricultural Code;
 - (2) An "injurious material" the use of which is regulated or prohibited under Chapter 3 (commencing with Section 14001) of Division 7 of the Agricultural Code; or
 - (3) Any material used for the same purpose as material referred to in paragraphs (1) and (2).
- (b) A public entity is liable for injuries caused by its use of a pesticide to the same extent as a private person except that no presumption of negligence arises from the failure of a public entity or a public employee to comply with a provision of a statute or regulation relating to the use of a pesticide if the statute or regulation by its terms is made inapplicable to the public entity or the public employee.
- (c) Sections 11761 to 11765 of the Agricultural Code, relating to reports of loss or damages from the use of pesticides, apply in an action against a public entity under this section.

Chapter 8. Activities to Abate an Impending Peril

865. Legislative findings and intent

The Legislature hereby finds and declares that:

- (a) The gradual movement of land, such as in prehistoric slide areas, or as a result of subsidence due to the depletion of underground or subterranean supporting substances, such as minerals, petroleum sources, water, and similar substances, can result in danger to persons or property. Although the movement is gradual and expressed in terms of numbers of inches, feet or meters per day, week or year, at some point the forces that are exerted by the movement will sever underground utilities, such as water, sewer, gas, electricity or telephone services and can cause the destruction of aboveground structures whose foundations become undermined or where support is denied altogether. Unlike an earthquake or rapid rockslide or landslide, these gradual earth movements permit possible intervention to arrest the movement and avoid harm which is posed to persons or property. If there is an adequate manifestation of the problem before actual harm to persons or property, it is possible to make some determinations as to a method of remedial action which can abate the hazard. However, any undertaking to arrest the earth movement may not be successful or may have within it the potential for hastening the movement and the damages resulting from such movement. Regardless of how slight that potential for aggravating the damages, local public entities are unwilling to undertake action to alleviate the hazard if such undertaking may invite potential liability.

(b) It is the intent of the Legislature in enacting this chapter to create an incentive for local public entities, upon learning of the particular earth movement which will result in possible damage to substantial areas of property and constitute a threat of injury to persons, to undertake remedial action to abate the earth movement or protect against the danger therefrom without fear of incurring liability as a result of undertaking such action.

866. Exemption of local entities from liability; Avoidance of impending peril due to gradual earth movement

(a) Subject to the provisions of subdivisions (b) and (c), in the event of public necessity and to avoid impending peril to persons or property as a result of gradual earth movement, a local public entity is not liable for damages for injury to persons or property resulting from such impending peril or from any action taken to abate such peril providing the legislative body of the local public entity has, on the basis of expert opinion or other reasonable basis, done all of the following:

- (1) On the basis of adequate evidence such as expert opinion or otherwise, found the existence of such impending peril.
- (2) Determined appropriate remedial action to halt, stabilize, or abate such impending peril.
- (3) Undertaken to implement such remedial action.

As used in this chapter, "gradual earth movements" includes, but is not limited to, perceptible changes in the earth either in a subterranean area or at the surface, or both, which if not arrested or contained will over a gradual period of time result in damage to or destruction of underground or aboveground property or harm to persons. However, "gradual earth movement" does not include movement which is caused by activity undertaken by a local public entity for purposes other than the abatement of peril caused by gradual earth movement.

As used in this chapter, "local public entity" has the meaning set forth in Section 900.4.

(b) If the local public entity is unable to complete the steps described in paragraphs (1) to (3), inclusive, of subdivision (a) because of the cessation of the hazard or because such actions cannot be completed before the occurrence of the hazard sought to be avoided, or because such legislative body of such entity shall reasonably determine that such remedial action will not abate such danger, the immunity provided herein shall nevertheless apply to such actions by such local public entity.

(c) The immunity provided herein is in addition to any other immunity of the local public entity provided by law or statute, including this part, and any claim of liability based upon the impending peril or any action of the local public entity is subject to such immunities and any defenses that would be available to the local public entity if it were a private person.

867. Exemption of employees

An employee of a local public entity is not liable for damages for injury to persons or property resulting from an impending peril or from any action taken to abate such peril pursuant to Section 866.

Chapter 21. Tort Liability Under Agreements Between Public Entities

895. "Agreement"

As used in this chapter "agreement" means a joint powers agreement entered into pursuant to Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code, an agreement to transfer the functions of a public entity or an employee thereof to another public entity pursuant to Part 2 (commencing with Section 51300) of Division 1 of Title 5 of the Government Code, and any other agreement under which a public entity undertakes to perform any function, service or act with or for any other public entity or employee thereof with its consent, whether such agreement is expressed by resolution, contract, ordinance or in any other manner provided by law; but "agreement" does not include an agreement between public entities

which is designed to implement the disbursement or subvention of public funds from one of the public entities to the other, whether or not it provides standards or controls governing the expenditure of such funds.

895.2. Joint and several liability of public entities entering into agreement

Whenever any public entities enter into an agreement, they are jointly and severally liable upon any liability which is imposed by any law other than this chapter upon any one of the entities or upon any entity created by the agreement for injury caused by a negligent or wrongful act or omission occurring in the performance of such agreement.

Notwithstanding any other law, if a judgment is recovered against a public entity for injury caused in the performance of an agreement, the time within which a claim for such injury may be presented or an action commenced against any other public entity that is subject to the liability determined by the judgment under the provisions of this section begins to run when the judgment is rendered.

895.4. Agreement's provision for contribution or indemnification

As part of any agreement, the public entities may provide for contribution or indemnification by any or all of the public entities that are parties to the agreement upon any liability arising out of the performance of the agreement.

895.6. Contribution between parties in absence of provision in agreement

Unless the public entities that are parties to an agreement otherwise provide in the agreement, if a public entity is held liable upon any judgment for damages caused by a negligent or wrongful act or omission occurring in the performance of the agreement and pays in excess of its pro rata share in satisfaction of such judgment, such public entity is entitled to contribution from each of the other public entities that are parties to the agreement. The pro rata share of each public entity is determined by dividing the total amount of the judgment by the number of public entities that are parties to the agreement. The right of contribution is limited to the amount paid in satisfaction of the judgment in excess of the pro rata share of the public entity so paying. No public entity may be compelled to make contribution beyond its own pro rata share of the entire judgment.

895.8. Application of chapter with respect to its effective date

Except for Section 895.6, this chapter applies to any agreement between public entities, whether entered into before or after the effective date of this chapter. Section 895.6 applies to any agreement between public entities entered into, or renewed, modified, or extended, after the effective date of this chapter.

[NOTE: With the exception of Section 955.1 (which follows), Parts 3 through 7, starting with Section 900, have not been reproduced because they are largely procedural.]

955.1. Immunity from liability for earthquake predictions

(a) The science of earthquake prediction is developing rapidly and, although still largely in a research stage, such predictions are now being initiated and are certain to continue into the future. Administrative procedures exist within the Office of Emergency Services to advise the Governor on the validity of earthquake predictions. Numerous important actions can be taken by state and local governments and special districts to protect life and property in response to earthquake predictions and associated warnings. It is the intent of this legislation to insure that such actions are taken in the public interest by government agencies acting in a responsible manner without fear of consequent financial liabilities.

(b) The Governor may, at his or her discretion, issue a warning as to the existence of an earthquake or volcanic prediction determined to have scientific validity. The state and its

agencies and employees shall not be liable for any injury resulting from the issuance or nonissuance of a warning pursuant to this subdivision or for any acts or omissions in fact gathering, evaluation, or other activities leading up to the issuance or nonissuance of a warning.

(c) Public entities and public employees may, on the basis of a warning issued pursuant to subdivision (b), take, or fail or refuse to take, any action or execute or fail or refuse to execute any earthquake or volcanic prediction response plan with relation to the warning which is otherwise authorized by law. In taking, or failing or refusing to take such action, neither public entities nor public employees shall be liable for any injuries caused thereby or for any injuries resulting from the preparation of, or failure or refusal to prepare, any earthquake hazard or damage prediction maps, plans for evacuation of endangered areas, and other plan elements.

(d) An earthquake or volcanic warning issued by the Governor pursuant to subdivision (b) is a sufficient basis for a declaration of a state of emergency or local emergency as defined by Section 8558. Public entities and public employees shall be immune from liability in accordance with all immunity provisions applicable during such state of emergency or local emergency.

B. ALASKA TORT CLAIMS ACT

Sec. 09.65.070. Suits against incorporated units of local government. (a) Except as provided in this section, an action may be maintained against a municipality in its corporate character and within the scope of its authority.

(b) A municipality may not require a person to post bond as a condition to bringing a cause of action against it.

(c) No action may be maintained against an employee or member of a fire department operated and maintained by a municipality or village if the claim is an action for tort or breach of a contractual duty and is based upon the act or omission of the employee or member of the fire department in the execution of a function for which the department is established.

(d) No action for damages may be brought against a municipality or any of its agents, officers or employees if the claim

(1) is based on a failure of the municipality, or its agents, officers, or employees, when the municipality is neither owner nor lessee of the property involved,

(A) to inspect property for a violation of any statute, regulation or ordinance, or a hazard to health or safety;

(B) to discover a violation of any statute, regulation, or ordinance, or a hazard to health or safety if an inspection of property is made; or

(C) to abate a violation of any statute, regulation or ordinance, or a hazard to health or safety discovered on property inspected;

(2) is based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty by a municipality or its agents, officers, or employees, whether or not the discretion involved is abused;

(3) is based upon the grant, issuance, refusal, suspension, delay or denial of a license, permit, appeal, approval, exception, variance, or other entitlement, or a rezoning;

(4) is based on the exercise or performance during the course of gratuitous extension of municipal services on an extraterritorial basis; or

(5) is based upon the exercise or performance of a duty or function upon the request of, or by the terms of an agreement or contract with, the state to meet emergency public safety requirements.

(e) In this section

(1) "municipality" means a home rule borough or city, a general law borough or city of any class, a unified municipality established under AS 29.68.240 — 29.68.440, or a municipality established by merger or consolidation under AS 29.68.030 — 29.68.110; the term includes a public corporation established by a municipality;

(2) "village" means an unincorporated community where at least 25 people reside as a social unit. (§ 5.13 ch 101 SLA 1962; am § 1 ch 23 SLA 1964; am § 1 ch 19 SLA 1975; am § 1 ch 215 SLA 1975; am §§ 1-3 ch 37 SLA 1977)

C. UTAH GOVERNMENTAL IMMUNITY ACT

63-30-1. Short title.

This act shall be known and may be cited as the "Utah Governmental Immunity Act."

1965

63-30-2. Definitions.

As used in this chapter:

(1) "Claim" means any claim or cause of action for money or damages against a governmental entity or against an employee.

(2) "Employee" means any officer, employee, or servant of a governmental entity, whether or not compensated, including student teachers certificated in accordance with Section 53-2-15, educational aides, students engaged in providing services to members of the public in the course of an approved medical, nursing, or other professional health care clinical training program, volunteers, and tutors.

(3) "Governmental entity" means the state and its political subdivisions as defined in this chapter.

(4)(a) "Governmental function" means any act, failure to act, operation, function, or undertaking of a governmental entity whether or not the act, failure to act, operation, function, or undertaking is characterized as governmental, proprietary, a core governmental function, unique to government, undertaken in a dual capacity, essential to or not essential to a government or governmental function, or could be performed by private enterprise or private persons.

(b) A "governmental function" may be performed by any department, agency, employee, agent, or officer of a governmental entity.

(5) "Injury" means death, injury to a person, damage to or loss of property, or any other injury that a person may suffer to his person, or estate, that would be actionable if inflicted by a private person or his agent.

(6) "Personal injury" means an injury of any kind other than property damage.

(7) "Political subdivision" means any county, city, town, school district, public transit district, redevelopment agency, special improvement or taxing district, or other governmental subdivision or public corporation.

(8) "Property damage" means injury to, or loss of, any right, title, estate, or interest in real or personal property.

(9) "State" means the state of Utah, and includes any office, department, agency, authority, commission, board, institution, hospital, college, university, or other instrumentality of the state.

1987

63-30-3. Immunity of governmental entities from suit.

Except as may be otherwise provided in this chapter, all governmental entities are immune from suit for any injury which results from the exercise of a governmental function, governmentally-owned hospital, nursing home, or other governmental health care facility, and from an approved medical, nursing, or other professional health care clinical training program conducted in either public or private facilities.

The management of flood waters and other natural disasters and the construction, repair, and operation of flood and storm systems by governmental entities are considered to be governmental functions, and governmental entities and their officers and employees are immune from suit for any injury or damage resulting from those activities.

1985

63-30-4. Act provisions not construed as admission of denial of liability - Effect of waiver of immunity - Exclusive remedy - Joinder of employee - Limitations on personal liability.

(1) Nothing contained in this chapter, unless specifically provided, shall be construed as an admission or denial of liability or responsibility in so far as governmental entities or their

employees are concerned. If immunity from suit is waived by this chapter, consent to be sued is granted and liability of the entity shall be determined as if the entity were a private person.

(2) Nothing in this chapter shall be construed as adversely affecting any immunity from suit which a governmental entity or employee may otherwise assert under state or federal law.

(3) The remedy against a governmental entity or its employee for an injury caused by an act or omission which occurs during the performance of such employee's duties, within the scope of employment, or under color of authority is, after the effective date of this act, exclusive of any other civil action or proceeding by reason of the same subject matter against the employee or the estate of the employee whose act or omission gave rise to the claim, unless the employee acted or failed to act through fraud or malice.

(4) An employee may be joined in an action against a governmental entity in a representative capacity if the act or omission complained of is one for which the governmental entity may be liable, but no employee may be held personally liable for acts or omissions occurring during the performance of the employee's duties, within the scope of employment or under color of authority, unless it is established that the employee acted or failed to act due to fraud or malice.

1983

63-30-5. Waiver of immunity as to contractual obligations.

Immunity from suit of all governmental entities is waived as to any contractual obligation. Actions arising out of contractual rights or obligations shall not be subject to the requirements of Sections 63-30-11, 63-30-12, 63-30-13, 63-30-14, 63-30-15, or 63-30-19.

1985

63-30-6. Waiver of immunity as to actions involving property.

Immunity from suit of all governmental entities is waived for the recovery of any property real or personal or for the possession thereof or to quiet title thereto, or to foreclose mortgages or other liens thereon or to determine any adverse claim thereon, or secure any adjudication touching any mortgage or other lien said entity may have or claim on the property involved.

1965

63-30-7. Waiver of immunity for injury from negligent operation of motor vehicles - Exception.

Immunity from suit of all governmental entities is waived for injury resulting from the negligent operation by any employee of a motor vehicle or other equipment during the performance of his duties, within the scope of employment, or under color of authority; provided, however, that this section shall not apply to the operation of emergency vehicles as defined by law and while being driven in accordance with the requirements of section 41-6-14.

1983

63-30-8. Waiver of immunity for injury caused by defective, unsafe, or dangerous condition of highways, bridges, or other structures.

Immunity from suit of all governmental entities is waived for any injury caused by a defective, unsafe, or dangerous condition of any highway, road, street, alley, crosswalk, sidewalk, culvert, tunnel, bridge, viaduct or other structure located thereon.

1965

63-30-9. Waiver of immunity for injury from dangerous or defective public building, structure, or other public improvement - Exception.

Immunity from suit of all governmental entities is waived for any injury caused from a dangerous or defective condition of any public building, structure, dam, reservoir or other public improvement. Immunity is not waived for latent defective conditions.

1965

63-30-10. Waiver of immunity for injury caused by negligent act or omission of employee - Exceptions - Waiver for injury caused by violation of fourth amendment rights.

(1) Immunity from suit of all governmental entities is waived for injury proximately caused by a negligent act or omission of an employee committed within the scope of employment except if the injury:

- (a) arises out of the exercise or performance or the failure to exercise or perform a discretionary function, whether or not the discretion is abused; or
- (b) arises out of assault, battery, false imprisonment, false arrest, malicious prosecution, intentional trespass, abuse of process, libel, slander, deceit, interference with contract rights, infliction of mental anguish, or civil rights; or
- (c) arises out of the issuance, denial, suspension, or revocation of, or by the failure or refusal to issue, deny, suspend, or revoke, any permit, license, certificate, approval, order, or similar authorization; or
- (d) arises out of a failure to make an inspection, or by reason of making an inadequate or negligent inspection of any property; or
- (e) arises out of the institution or prosecution of any judicial or administrative proceeding, even if malicious or without probable cause; or
- (f) arises out of a misrepresentation by the employee whether or not it is negligent or intentional; or
- (g) arises out of or results from riots, unlawful assemblies, public demonstrations, mob violence, and civil disturbances; or
- (h) arises out of or in connection with the collection of and assessment of taxes; or
- (i) arises out of the activities of the Utah National Guard; or
- (j) arises out of the incarceration of any person in any state prison, county, or city jail or other place of legal confinement; or
- (k) arises from any natural condition on state lands or the result of any activity authorized by the State Land Board; or
- (l) arises out of the activities of providing emergency medical assistance, fighting fire, handling hazardous materials, or emergency evacuations.

(2) Immunity from suit of all governmental entities is waived for injury proximately caused or arising out of a violation of protected fourth amendment rights as provided in Chapter 16, Title 78 which shall be the exclusive remedy for injuries to those protected rights. If Section 78-16-5 or Subsection 77-35-12(g) or any parts thereof are held invalid or unconstitutional, this Subsection (2) shall be void and governmental entities shall remain immune from suit for violations of fourth amendment rights.

1985

63-30-10.5. [Eminent domain - Immunity waived.]

(1) Immunity from suit of all governmental entities is waived for the recovery of compensation from the governmental entity when the governmental entity has taken or damaged private property without just compensation.

(2) Compensation and damages shall be assessed according to the requirements of Chapter 34, Title 78.

1987

[NOTE: With the exception of Section 63-30-22 (which follows), Sections 63-30-11 through 63-30-38 have not been reproduced because they are largely procedural.]

63-30-22. Exemplary or punitive damages prohibited - Governmental entity exempt from execution, attachment or garnishment.

No judgment shall be rendered against the governmental entity for exemplary or punitive damages; nor shall execution, attachment or garnishment issue against the governmental entity.

1965

D. WASHINGTON TORT CLAIMS ACT

4.96.010. Tortious conduct of political subdivisions, municipal corporations and quasi municipal corporations— Liability for damages

All political subdivisions, municipal corporations, and quasi municipal corporations of the state, whether acting in a governmental or proprietary capacity, shall be liable for damages arising out of their tortious conduct, or the tortious conduct of their officers, agents or employees to the same extent as if they were a private person or corporation: *Provided*, That the filing within the time allowed by law of any claim required shall be a condition precedent to the maintaining of any action. The laws specifying the content for such claims shall be liberally construed so that substantial compliance therewith will be deemed satisfactory.

Enacted by Laws 1967, ch. 164, § 1.

II. SPECIAL CALIFORNIA LEGISLATION

A. CALIFORNIA EMERGENCY SERVICES ACT

The California Emergency Services Act of 1970 (Cal. Government code, sec. 8585-8589.5) provides for state and local response to "emergencies" which result in disaster or extreme peril to life, property and the resources of the State. "Earthquake or other conditions" are specifically included in the Emergency Services Act's provisions in section 8558. The Act expressly provides that an earthquake warning issued by the Governor is a sufficient basis for declaration of a state of emergency or local emergency, and also refers to "other conditions... which... are or are likely..." to be beyond the capacity of government.

Provisions for the Dam Safety Act of 1972 are also included within the California Emergency Services Act (Cal. Government Code, sec. 8589.5) and are discussed in more detail in section I of this report).

Key sections of the California Emergency Services Act that relate to local government liability are reproduced on the following pages.

ARTICLE 1

Purpose

§ 8550. Declaration of purpose and policy

§ 8551. Citation of chapter

§ 8550. Declaration of purpose and policy

The state has long recognized its responsibility to mitigate the effects of natural, manmade, or war-caused emergencies which result in conditions of disaster or in extreme peril to life, property, and the resources of the state, and generally to protect the health and safety and preserve the lives and property of the people of the state. To insure that preparations within the state will be adequate to deal with such emergencies, it is hereby found and declared to be necessary:

(a) To confer upon the Governor and upon the chief executives and governing bodies of political subdivisions of this state the emergency powers provided herein; and to provide for state assistance in the organization and maintenance of the emergency programs of such political subdivisions;

(b) To provide for a state agency to be known and referred to as the Office of Emergency Services, within the Governor's office; and to prescribe the powers and duties of the director of that office;

- (c) To provide for the assignment of functions to state agencies to be performed during an emergency and for the coordination and direction of the emergency actions of such agencies;
- (d) To provide for the rendering of mutual aid by the state government and all its departments and agencies and by the political subdivisions of this state in carrying out the purposes of this chapter;
- (e) To authorize the establishment of such organizations and the taking of such actions as are necessary and proper to carry out the provisions of this chapter.

It is further declared to be the purpose of this chapter and the policy of this state that all emergency services functions of this state be coordinated as far as possible with the comparable functions of its political subdivisions, of the federal government including its various departments and agencies, of other states, and of private agencies of every type, to the end that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency that may occur.

Added Stats 1970 ch 1454 § 2.

Prior Law: Former Mil & Vet C § 1500, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 1945 ch 1024 § 3, Stats 1955 ch 845 § 1, Stats 1st Ex Sess 1956 ch 56 § 1.

§ 8551. Citation of chapter

This chapter may be cited as the “California Emergency Services Act.”

Added Stats 1970 ch 1454 § 2.

§ 8558. Conditions or degrees of emergency

Three conditions or degrees of emergency are established by this chapter:

(a) “State of war emergency” means the condition which exists immediately, with or without a proclamation thereof by the Governor, whenever this state or nation is attacked by an enemy of the United States, or upon receipt by the state of a warning from the federal government indicating that such an enemy attack is probable or imminent.

(b) “State of emergency” means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestation or disease, the Governor’s warning of an earthquake or volcanic prediction, or an earthquake, or other conditions, other than conditions resulting from a labor controversy or conditions causing a “state of war emergency,” which conditions, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission.

(c) "Local emergency" means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the territorial limits of a county, city and county, or city, caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, or other conditions, other than conditions resulting from a labor controversy, which conditions are or are likely to be beyond the control of the services, personnel, equipment, and facilities of that political subdivision and require the combined forces of other political subdivisions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission.

Amended Stats 1982 ch 1531 § 4; Stats 1984 ch 1284 § 2.

Amendments:

1982 Amendment: Added "plant or animal infestation or disease," in subds (b) and (c).

1984 Amendment: Substituted "the Governor's warning of an earthquake or volcanic prediction, or an earthquake," for "or earthquake" in subds (b) and (c).

ARTICLE 3.7

Toxic Disasters

[Added by Stats 1980 ch 805 § 1.]

- § 8574.7. Establishment of contingency plan
- § 8574.8. Plan provisions; Authority for management of on-highway spill; Establishment of central reporting system
- § 8574.9. "Toxic disaster"; Listing of toxic substances

§ 8574.7. Establishment of contingency plan

The Governor shall establish a state toxic disaster contingency plan pursuant to the provisions of this article.

Added Stats 1980 ch 805 § 1.

§ 8574.8. (First of Two; operative until January 1, 1989) Agency implementation; Management authority; Reporting requirements

(a) A state toxic disaster contingency plan established pursuant to this article shall provide for an integrated and effective state procedure to respond to the occurrence of toxic disasters within the state. The plan shall provide for specified state agencies to implement the plan, for interagency coordination of the training conducted by state agencies pursuant to the plan, and for on-scene coordination of response actions.

Notwithstanding any provision of the plan, the authority for the management of the scene of an on-highway toxic spill or disaster shall be vested in

the appropriate law enforcement agency having primary traffic investigative authority on the highway where the incident occurs. During the preparation of the toxic disaster contingency plan, the Office of Emergency Services shall adopt the recommendations of the Department of the California Highway Patrol in developing response and on-scene procedures for toxic disasters which occur upon the highways, based upon previous studies for such procedures, insofar as the procedures are not inconsistent with the overall plan for initial notification of toxic disasters by public agencies and for after-incident evaluation and reporting.

(b) The Office of Emergency Services shall establish a central notification and reporting system to facilitate operation of the state toxic disaster response procedures designated by the toxic disaster contingency plan.

(c) Any state or local agency having knowledge of a toxic disaster shall ensure that the disaster is promptly reported to the Office of Emergency Services. State or local agencies may comply with the requirement of this subdivision for on-highway toxic disasters by completing the notification specified in Section 2453 of the Vehicle Code. However, if the California Highway Patrol is notified of an on-highway toxic disaster pursuant to Section 2453 of the Vehicle Code, it shall promptly notify the Office of Emergency Services.

(d) The Office of Emergency Services shall establish and maintain a listing of all toxic disasters occurring in California, including a description of the disaster, the location, the time and date, the state and local agencies responding to the disaster, the actions taken by these agencies, and the agency which had primary authority for responding to the disaster.

This section shall remain in effect only until January 1, 1989, and as of that date is repealed.

Added Stats 1980 ch 805 § 1; Amended Stats 1982 ch 543 § 1, ch 651 § 1.

Amendments:

1982 Amendment: Added subds (c) and (d) and the last paragraph. (As amended by Stats 1982, ch 651, compared to the section as it read prior to 1982. This section was also amended by an earlier chapter, ch 543. See Gov C § 9605.)

Management of on-highway hazardous substance spills: Veh C § 2454.

The law enforcement agency having primary traffic investigative authority on the highway where a hazardous materials incident occurs may not delegate scene management responsibility, pursuant to Gov. Code, § 8574.8, or Veh. Code, § 2454, to another agency. 65 Ops Atty Gen 32.

§ 8574.8. (Second of Two; operative January 1, 1989) Agency implementation; Management authority; Central notification and reporting system

(a) A state toxic disaster contingency plan established pursuant to this article shall provide for an integrated and effective state procedure to respond to the occurrence of toxic disasters within the state. The plan shall provide for specified state agencies to implement the plan, for interagency coordination of the training conducted by state agencies pursuant to the plan, and for on-scene coordination of response actions.

Notwithstanding any provision of the plan, the authority for the management of the scene of an on-highway toxic spill or disaster shall be vested in the appropriate law enforcement agency having primary traffic investigative authority on the highway where the incident occurs. During the preparation of the toxic disaster contingency plan, the Office of Emergency Services shall adopt the recommendations of the Department of the California Highway Patrol in developing response and on-scene procedures for toxic disasters

which occur upon the highways, based upon previous studies for such procedures, insofar as the procedures are not inconsistent with the overall plan for initial notification of toxic disasters by public agencies and for after-incident evaluation and reporting.

(b) The Office of Emergency Services shall establish a central notification and reporting system to facilitate operation of the state toxic disaster response procedures designated by the toxic disaster contingency plan.

(c) This section shall become operative on January 1, 1989.

Added Stats 1982 ch 651 § 2, operative January 1, 1989.

§ 8574.9. “Toxic disaster”; Listing of toxic substances

For purposes of this article, a “toxic disaster” means an occurrence where toxic substances are dispersed in the environment in such a manner as to cause, or potentially cause, injury or death to a significant number of persons or significant harm to the natural environment, as determined by the implementing state agency, through direct or indirect contact with such toxic substances.

(b) The toxic disaster contingency plan shall provide a listing of the kinds of toxic substances which pose potential hazards to human health and the environment and which could be the subject of a toxic disaster.

For purposes of this article, “toxic substances” means, for highway transportation purposes, substances and materials designated as hazardous by the United States Department of Transportation for purposes of Parts 172, 173, and 177 of Title 49 of the Code of Federal Regulations.

Added Stats 1980 ch 805 § 1.

ARTICLE 10

Local Disaster Councils

§ 8610. Creation by ordinance; Plan development

Counties, cities and counties, and cities may create disaster councils by ordinance. A disaster council shall develop plans for meeting any condition constituting a local emergency, state of emergency, or state of war emergency; such plans shall provide for the effective mobilization of all of the resources within the political subdivision, both public and private. The governing body of a county, city and county, or city may, in such ordinance or by resolution adopted pursuant to such ordinance, provide for the organization, powers and duties, divisions, services, and staff of the emergency organization. The governing body of a county, city and county, or city may, by ordinance or resolution, authorize public officers, employees, and registered volunteers to command the aid of citizens when necessary in the execution of their duties during a state of war emergency, a state of emergency, or a local emergency.

Counties, cities and counties, and cities may enact ordinances and resolutions and either establish rules and regulations or authorize disaster councils to recommend to the director of the local emergency organization rules and regulations for dealing with local emergencies that can be adequately dealt with locally; and further may act to carry out mutual aid on a voluntary basis and, to this end, may enter into agreements.

Added Stats 1970 ch 1454 § 2; Amended Stats 1974 ch 1158 § 2.

Prior Law: Former Mil & Vet C § 1571, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 1943 ch 294 § 6, Stats 4th Ex Sess 1944 ch 55 § 25, Stats 1945 ch 1024 § 27, Stats 1951 ch 1351 § 12, Stats 1st Ex Sess 1956 ch 56 § 22, Stats 1959 ch 1330 § 6.

Amendments:

1974 Amendment: (1) Substituted "within" for "of" before "the political" in the second sentence of the first paragraph; and (2) amended the last sentence of the first paragraph by (a) adding "ordinance or" before "resolution"; (b) substituting a comma for "or" after "war emergency"; and (c) adding ", or a local emergency" at the end of the sentence.

ARTICLE 11

Mutual Aid

- § 8615. Legislative purpose
- § 8616. Outside aid
- § 8617. Exercise of mutual aid powers in nonemergency periods
- § 8618. Local officials to remain in charge at incident requiring mutual aid
- § 8619. Reciprocal aid agreements with other states or federal government; Consultation with local officials

§ 8615. Legislative purpose

It is the purpose of the Legislature in enacting this article to facilitate the rendering of aid to areas stricken by an emergency and to make unnecessary the execution of written agreements customarily entered into by public agencies exercising joint powers. Emergency plans duly adopted and approved as provided by the Governor shall be effective as satisfying the requirement for mutual aid operational plans provided in the Master Mutual Aid Agreement.

Added Stats 1970 ch 1454 § 2.

§ 8616. Outside aid

During any state of war emergency or state of emergency when the need arises for outside aid in any county, city and county, or city, such aid shall be rendered in accordance with approved emergency plans.

It shall be the duty of public officials to cooperate to the fullest possible extent in carrying out such plans.

Added Stats 1970 ch 1454 § 2.

Prior Law: Former Mil & Vet C § 1562, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 4th Ex Sess 1944 ch 55 § 20, Stats 1945 ch 1024 § 25, Stats 1951 ch 1351 § 11, Stats 1st Ex Sess 1956 ch 56 § 19.5, Stats 1957 ch 1759 § 1, Stats 1959 ch 1330 § 4.

§ 8617. Exercise of mutual aid powers in nonemergency periods

In periods other than a state of war emergency, a state of emergency, or a local emergency, state agencies and political subdivisions have authority to exercise mutual aid powers in accordance with the Master Mutual Aid Agreement and local ordinances, resolutions, agreements, or plans therefor.

Added Stats 1970 ch 1454 § 2.

Prior Law: Former Mil & Vet C § 1562, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 4th Ex Sess 1944 ch 55 § 20, Stats 1945 ch 1024 § 25, Stats 1951 ch 1351 § 11, Stats 1st Ex Sess 1956 ch 56 § 19.5, Stats 1957 ch 1759 § 1, Stats 1959 ch 1330 § 4.

§ 8618. Local officials to remain in charge at incident requiring mutual aid

Unless otherwise expressly provided by the parties, the responsible local official in whose jurisdiction an incident requiring mutual aid has occurred shall remain in charge at such incident, including the direction of personnel and equipment provided him through mutual aid.

Added Stats 1970 ch 1454 § 2.

Prior Law: Former § 1564, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 1959 ch 1330 § 5.

§ 8619. Reciprocal aid agreements with other states or federal government; Consultation with local officials

The Governor may on behalf of this state enter into reciprocal aid agreements or compacts, mutual aid plans, or other interstate arrangements for the protection of life and property with other states and the federal government, either on a statewide basis or a political subdivision basis. Prior to committing the personnel, equipment, or facilities of any political subdivision of this state, the Governor shall consult with the chief executive or governing body of such political subdivision. Such mutual aid arrangements may include the furnishing or exchange, on such terms and conditions as are deemed necessary, of supplies, equipment, facilities, personnel, and services.

Added Stats 1970 ch 1454 § 2.

Prior Law: Former Mil & Vet C § 1535.5, as added by Stats 3d Ex Sess 1950 ch 3 § 8.

Proclamation of state of emergency

§ 8625. Proclamation by Governor

The Governor is hereby empowered to proclaim a state of emergency in an area affected or likely to be affected thereby when:

- (a) He finds that circumstances described in subdivision (b) of Section 8558 exist; and either
- (b) He is requested to do so (1) in the case of a city by the mayor or chief executive, (2) in the case of a county by the chairman of the board of supervisors or the county administrative officer; or
- (c) He finds that local authority is inadequate to cope with the emergency.

Added Stats 1970 ch 1454 § 2.

Prior Law:

(a) Former Mil & Vet C § 1575, as added by Stats 1957 ch 2085 § 2.

(b) Former Mil & Vet C § 1580, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 4th Ex Sess 1944 ch 55 § 27, Stats 1945 ch 1024 § 29.

§ 8626. Proclamation to be in writing; Effective date; Filing; Publicity and notice

Such proclamation shall be in writing and shall take effect immediately upon its issuance. As soon thereafter as possible such proclamation shall be filed in the office of the Secretary of State. The Governor shall cause widespread publicity and notice to be given such proclamation.

Added Stats 1970 ch 1454 § 2.

Prior Law: Former Mil & Vet C § 1580, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 4th Ex Sess 1944 ch 55 § 27, Stats 1945 ch 1024 § 29.

§ 8627. Powers of Governor

During a state of emergency the Governor shall, to the extent he deems necessary, have complete authority over all agencies of the state government and the right to exercise within the area designated all police power vested in the state by the Constitution and laws of the State of California in order to effectuate the purposes of this chapter. In exercise thereof, he shall promulgate, issue, and enforce such orders and regulations as he deems necessary, in accordance with the provisions of Section 8567.

Added Stats 1970 ch 1454 § 2.

Prior Law: Former Mil & Vet C § 1581, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 1945 ch 1024 § 30.

§ 8628. Utilization and employment of state personnel, equipment and facilities; Supplemental services; Expenditures

During a state of emergency the Governor may direct all agencies of the state government to utilize and employ state personnel, equipment, and facilities for the performance of any and all activities designed to prevent or alleviate actual and threatened damage due to the emergency; and he may direct such agencies to provide supplemental services and equipment to political subdivisions to restore any services which must be restored in order to provide for the health and safety of the citizens of the affected area. Any agency so directed by the Governor may expend any of the moneys which have been appropriated to it in performing such activities, irrespective of the particular purpose for which the money was appropriated.

Added Stats 1970 ch 1454 § 2.

Prior Law:

(a) Former Mil & Vet C § 1563, as added by Stats 1st Ex Sess 1943 ch 1 § 2, amended by Stats 4th Ex Sess 1944 ch 55 § 21, Stats 1945 ch 1024 § 26, Stats 1st Ex Sess 1956 ch 56 § 21.5, Stats 1959 ch 1456 § 1.

(b) Former Mil & Vet C § 1576, as added by Stats 1st Ex Sess 1956 ch 56 § 20 as § 1543, renumbered by Stats 1957 ch 2085 § 3, amended by Stats 1959 ch 1456 § 2.

Cross References:

Reimbursement for expenditures pursuant to this section: § 8648.

§ 8629. Termination of state of emergency; Termination of emergency powers

The Governor shall proclaim the termination of a state of emergency at the earliest possible date that conditions warrant. All of the powers granted the Governor by this chapter with respect to a state of emergency shall terminate when the state of emergency has been terminated by proclamation of the Governor or by concurrent resolution of the Legislature declaring it at an end.

Added Stats 1970 ch 1454 § 2.

ARTICLE 14

Local Emergency

- § 8630. Proclamation by local governing body; Duration; Review
- § 8631. Provision of mutual aid by political subdivisions
- § 8632. Provision of mutual aid by state agencies
- § 8633. Costs incurred in executing mutual aid agreements as charge against state
- § 8634. Promulgation of orders and regulations; Curfew

Cross References:

Mutual aid: §§ 8615 et seq.

§ 8630. Proclamation by local governing body; Duration; Review

A local emergency may be proclaimed only by the governing body of a county, city and county, or city or by an official so designated by ordinance adopted by such governing body. Whenever a local emergency is proclaimed by an official designated by ordinance, the local emergency shall not remain in effect for a period in excess of seven days unless it has been ratified by the governing body. The governing body shall review, at least every 14 days until such local emergency is terminated, the need for continuing the local emergency and shall proclaim the termination of such local emergency at the earliest possible date that conditions warrant.

Added Stats 1970 ch 1454 § 2.

Cross References:

Emergency powers of local agency: §§ 53020–53023.

Collateral References:

Cal Jur 3d Municipalities § 216, State of California § 48.

§ 8631. Provision of mutual aid by political subdivisions

In periods of local emergency, political subdivisions have full power to provide mutual aid to any affected area in accordance with local ordinances, resolutions, emergency plans, or agreements therefor.

Added Stats 1970 ch 1454 § 2.

Cross References:

Mutual aid regions: § 8600.

§ 8632. Provision of mutual aid by state agencies

State agencies may provide mutual aid, including personnel, equipment, and other available resources, to assist political subdivisions during a local emergency or in accordance with mutual aid agreements or at the direction of the Governor.

Added Stats 1970 ch 1454 § 2.

Cross References:

Emergency powers of local agency: §§ 53020–53023.

§ 8633. Costs incurred in executing mutual aid agreements as charge against state

In the absence of a state of war emergency or state of emergency, the cost of extraordinary services incurred by political subdivisions in executing mutual aid agreements shall constitute a legal charge against the state when approved by the Governor in accordance with orders and regulations promulgated as prescribed in Section 8567.

Added Stats 1970 ch 1454 § 2.

Cross References:

Funds from which emergency obligation payable: § 53021.

§ 8634. Promulgation of orders and regulations; Curfew

During a local emergency the governing body of a political subdivision, or officials designated thereby, may promulgate orders and regulations necessary to provide for the protection of life and property, including orders or regulations imposing a curfew within designated boundaries where necessary to preserve the public order and safety. Such orders and regulations and amendments and rescissions thereof shall be in writing and shall be given widespread publicity and notice.

The authorization granted by this chapter to impose a curfew shall not be construed as restricting in any manner the existing authority of counties and cities and any city and county to impose pursuant to the police power a curfew for any other lawful purpose.

Added Stats 1970 ch 1454 § 2.

Cross References:

Declaration of emergency: §§ 14120, 14970.

Duties of local governments during state of emergency

§ 8643. Duties of local governing body during state of emergency

During a state of war emergency a state of emergency or a local emergency the governing body shall:

(a) Ascertain the damage to the political subdivision and its personnel and property. For this purpose it shall have the power to issue subpoenas to compel the attendance of witnesses and the production of records.

(b) Proceed to reconstitute itself by filling vacancies until there are sufficient officers to form the largest quorum required by the law applicable to that political subdivision. Should only one member of the governing body or only one standby officer be available, that one shall have power to reconstitute the governing body.

(c) Proceed to reconstitute the political subdivision by appointment of qualified persons to fill vacancies.

(d) Proceed to perform its functions in the preservation of law and order and in the furnishing of local services.

Added Stats 1970 ch 1454 § 2; Amended Stats 1974 ch 595 § 5.

Prior Law: Former Mil & Vet C § 1550.08, as added by Stats 1957 ch 1368 § 1.

Amendments:

1974 Amendment: Added "a state of emergency or a local emergency" in the introductory clause.

B. EARTHQUAKE PREDICTION LEGISLATION

Liability for injuries resulting from earthquake predictions, public warnings and government actions are addressed in the California Government Code Section 955.1, which is part of the Tort Claims Act (Sec. 955.1 is reproduced on pages 24-25 of this report).

This legislation, initiated in 1976 as SB 1950, gave recognition to significant advancements in the science of earthquake prediction. It gives the Governor power to issue earthquake warnings, with no liability to the State as a result of issuance or non-issuance. A 1979 ABAG- sponsored amendment (part of SB 555), broaden immunity to include not only the State, but also its agencies, its political subdivision and public employees. It was further amended in 1984 to define "state of emergency" and clarify government liability. The 1984 amendments were sponsored by SCEPP and extended immunity to include volcanic eruption predictions.

C. SAFETY ELEMENT REQUIREMENT

Following the 1971 San Fernando earthquake, the California legislature amended the State Planning Act (Cal. Government Code, Sec. 65301-65303) to require that all local general plans include a seismic safety element as well as a safety element. In a 1984 amendment (sec. 65302 (g)) these requirements were combined into a single safety element (which must address seismic concerns) intended to protect communities from earthquakes and associated hazards.

The 1984-85 amendments require that the safety element contain provisions for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence and other geologic hazards known to the legislative body; flooding; and wildland and urban fires.

Recent changes to the State Planning Act, sections 65300.9 -65302 of the Government Code are included below.

§ 65300.9. Legislative policy

The Legislature recognizes that the capacity of California cities and counties to respond to state planning laws varies due to the legal differences between cities and counties, both charter and general law, and to differences among them in physical size and characteristics, population size and density, fiscal and administrative capabilities, land use and development issues, and human needs. It is the intent of the Legislature in enacting this chapter to provide an opportunity for each city and county to coordinate its local budget planning and local planning for federal and state program activities, such as community development, with the local land use planning process, recognizing that each city and county is required to establish its own appropriate balance in the context of the local situation when allocating resources to meet these purposes.

(Added by Stats.1984, c. 1009, § 3.5.)

1984 Legislation

Legislative intent relating to Stats.1984, c. 1009, see note under Educ.C. § 39002.

Derivation: Former § 65421, added by Stats.1978, c. 1123, p. 3438, § 1.

§ 65301. Content of general plan to enable legislative enactment; application to charter cities

(a) The general plan shall be so prepared that all or individual elements of it may be adopted by the legislative body, and so that it may be adopted by the legislative body for all or part of the territory of the county or city and such other territory outside its boundaries which in its judgment bears relation to its planning. The general plan may be adopted in any format deemed appropriate or convenient by the legislative body, including the combining of elements. The legislative body may adopt all or part of a plan of another public agency in satisfaction of all or part of the requirements of Section 65302 if the plan of the other public agency is sufficiently detailed and its contents are appropriate, as determined by the legislative body, for the adopting city or county.

(b) The general plan may be adopted as a single document or as a group of documents relating to subjects or geographic segments of the planning area.

(c) The general plan shall address each of the elements specified in Section 65302 to the extent that the subject of the element exists in the planning area. The degree of specificity and level of detail of the discussion of each such element shall reflect local conditions and circumstances. However, this section shall not affect the requirements of subdivision (c) of Section 65302, nor be construed to expand or limit the authority of the Department of Housing and Community Development to review housing elements pursuant to Section 50459 of the Health and Safety Code.

The requirements of this section shall apply to charter cities.

(Amended by Stats.1984, c. 1009, § 4; Stats.1985, c. 67, § 1.)

§ 65302. Elements required to be included in plan

The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to those areas. The land use element shall designate, in a land use category that provides for timber production, those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982, Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5. * * *

(b) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies which have developed, served, controlled or conserved water for any purpose for the county or city for which the plan is prepared. The conservation element may also cover:

- (1) The reclamation of land and waters.
- (2) Prevention and control of the pollution of streams and other waters.
- (3) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
- (4) Prevention, control, and correction of the erosion of soils, beaches, and shores.
- (5) Protection of watersheds.
- (6) The location, quantity and quality of the rock, sand and gravel resources.
- (7) Flood control.

The conservation element shall be prepared and adopted no later than December 31, 1973.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

- (1) Highways and freeways.
- (2) Primary arterials and major local streets.
- (3) Passenger and freight on-line railroad operations and ground rapid transit systems.
- (4) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.
- (5) Local industrial plants, including, but not limited to, railroad classification yards.
- (6) Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (L_{dn}). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Each county and city shall submit to the Division of Mines and Geology of the Department of Conservation one copy of the safety element and any technical studies used for developing the safety element.

(Amended by Stats.1984, c. 1009, § 5; Stats.1985, c. 114, § 4, urgency, eff. June 28, 1985; Stats.1985, c. 1199, § 4.)

D. ALQUIST-PRIOLO SPECIAL STUDIES ZONES

1. Alquist-Priolo Special Studies Zones Act

The San Fernando earthquake brought many earthquake hazards to the attention of the California State legislature, including the hazards due to surface fault rupture. As a result they passed the Alquist-Priolo Special Studies Zones Act in 1972 (Cal. Public Resources Code sec. 2621-2630). The Act directs the State Geologist (head of California Division of Mines and Geology) to delineate zones generally 1/4 mile wide, or less, along known active faults.

Local governments are required to have any project developer (other than for a proposed minor subdivision) conduct a geologic study to determine the existence of active fault traces and submit a report for review by the State Mining and Geology Board. This act is intended "to assist cities, counties and State agencies to prohibit the location of development and structures for human occupancy across the trace of active faults" and thus, protect new construction from surface fault rupture hazards.

The Alquist-Priolo Special Studies Zone Act was amended in September 1974, May 1975, September 1975, September 1976 and September 1979.

2. Policies and Criteria of the State Mining and Geology Board Act

The associated Policies and Criteria of the State Mining and Geology Board of 1973 (Cal. Administrative code 3600-3603) further states that it is the intent of the program is to prohibit any structure intended for human occupancy from being placed astride an active (Holocene) fault. The law calls for a general 50 foot setback.

Policies and Criteria were amended in July 1974, June 1975 and October 1984. Alquist-Priolo regulations as of 1985 are included for reference (see below).

DIVISION 2. GEOLOGY, MINES AND MINING CHAPTER 7.5. SPECIAL STUDIES ZONES

2621. This chapter shall be known and may be cited as the Alquist-Priolo Special Studies Zones Act.

2621.5. It is the purpose of this chapter to provide for the adoption and administration of zoning laws, ordinances, rules, and regulations by cities and counties in implementation of the general plan that is in effect in any city or county. The Legislature declares that the provisions of this chapter are intended to provide policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults as defined by this board.

This chapter is applicable to any project, as defined in Section 2621.6, upon issuance of the official special studies zones maps to affected local jurisdictions, but does not apply to any development or structure in existence prior to May 4, 1975. The implementation of this chapter shall be pursuant to policies and criteria established and adopted by the State Mining and Geology Board.

2621.6. (a) As used in this chapter, "project" means:

(1) Any subdivision of land which is subject to the Subdivision Map Act, Division 2 (commencing with Section 66410) of Title 7 of the Government Code, and which contemplates the eventual construction of structures for human occupancy.

(2) Structures for human occupancy, with the exception of:
(A) Single-family wood frame dwellings to be built on parcels of land for which geologic reports have been approved pursuant to the provisions of paragraph (1) of this subdivision.

(B) A single-family wood frame dwelling not exceeding two stories when such dwelling is not part of a development of four or more dwellings.

(b) For the purposes of this chapter, a mobilehome, whose body width exceeds eight feet shall be considered to be a single-family wood frame dwelling not exceeding two stories.

2621.7. This chapter, except Section 2621.9 shall not apply to the conversion of an existing apartment complex into a condominium. This chapter shall apply to projects which are located within a delineated special studies zone.

2621.8. This chapter shall not apply to alterations or additions to any structure within a special studies zone the value of which does not exceed 50 percent of the value of the structure.

2621.9. A person who is acting as an agent for a seller of real property which is located within a delineated special studies zone, or the seller if he is acting without an agent, shall disclose to any prospective purchaser the fact that the property is located within a delineated special studies zone.

2622. In order to assist cities and counties in their planning, zoning, and building-regulation functions, the State Geologist shall delineate, by December 31, 1973, appropriately wide special studies zones to encompass all potentially and recently active traces of the San Andreas, Calaveras, Hayward, and San Jacinto Faults, and such other faults, or segments thereof, as he deems sufficiently active and well-defined as to constitute a potential hazard to structures from surface faulting or fault creep. Such special studies zones shall ordinarily be one-quarter mile or less in width, except in circumstances which may require the State Geologist to designate a wider zone.

Pursuant to this section, the State Geologist shall compile maps delineating the special studies zones and shall submit such maps to all affected cities, counties, and state agencies, not later than December 31, 1973, for review and comment. Concerned jurisdictions and agencies shall submit all such comments to the State Mining and Geology Board for review and consideration within 90 days. Within 90 days of such review, the State Geologist shall provide copies of the official maps to concerned state agencies and to each city or county having jurisdiction over lands lying within any such zone.

The State Geologist shall continually review new geologic and seismic data and shall revise the special studies zones or delineate additional special studies zones when warranted by new information. The State Geologist shall submit all revised maps and

additional maps to all affected cities, counties, and state agencies for their review and comment. Concerned jurisdictions and agencies shall submit all such comments to the State Mining and Geology Board for review and consideration within 90 days. Within 90 days of such review, the State Geologist shall provide copies of the revised and additional official maps to concerned state agencies and to each city or county having jurisdiction over lands lying within any such zone.

2623. The approval of a project by a city or county shall be in accordance with policies and criteria established by the State Mining and Geology board and the findings of the State Geologist. In the development of such policies and criteria, the State Mining and Geology Board shall seek the comment and advice of affected cities, counties, and state agencies. Cities and counties shall require, prior to the approval of a project, a geologic report defining and delineating any hazard of surface fault rupture. If the city or county finds that no undue hazard of this kind exists, the geologic report on such hazard may be waived, with approval of the State Geologist.

After a report has been approved or a waiver granted, subsequent geologic reports shall not be required, provided that new geologic data warranting further investigations is not recorded.

2624. Nothing in this chapter is intended to prevent cities and counties from establishing policies and criteria which are stricter than those established by this chapter or by the State Mining and Geology Board, nor from imposing and collecting fees in addition to those required under this chapter.

2625. (a) Each applicant for approval of a project may be charged a reasonable fee by the city or county having jurisdiction over the project.

(b) Such fees shall be set in an amount sufficient to meet, but not to exceed, the costs to the city or county of administering and complying with the provisions of this chapter.

(c) The geologic report required by Section 2623 shall be in sufficient detail to meet the criteria and policies established by the State Mining and Geology Board for individual parcels of land.

2630. In carrying out the provisions of this chapter, the State Geologist and the board shall be advised by the Seismic Safety Commission.

(Excerpts from the California Administrative Code, Title 14, Division 2, Chapter 8, Subchapter 1, Article 3)

3600. Purpose.

It is the purpose of this subchapter to set forth the policies and criteria of the State Mining and Geology Board, hereinafter referred to as the "Board," governing the exercise of city, county, and state agency responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults in accordance with the provisions of Public Resources Code Section 2621 et seq. (Alquist-Priolo Special Studies Zones Act). The policies and criteria set forth herein shall be limited to potential hazards resulting from surface faulting or fault creep within special studies zones delineated on maps officially issued by the State Geologist. NOTE: Authority cited: Section 2621.5, Public Resources Code. Reference: Sections 2621 - 2630, Public Resources Code.

3601. Definitions.

The following definitions as used within the Act and herein shall apply:

(a) An "active fault" is a fault that has had surface displacement within Holocene time (about the last 11,000 years), hence constituting a potential hazard to structures that might be located across it.

(b) A "fault trace" is that line formed by the intersection of a fault and the earth's surface, and is the representation of a fault as depicted on a map, including maps of special studies zones.

(c) A "lead agency" is the city or county with the authority to approve projects.

(d) "Special studies zones" are areas delineated by the State Geologist, pursuant to the Alquist-Priolo Special Studies Zones Act (Public Resources Code Section 2621 et seq.) and this subchapter, which encompass the traces of active faults.

(e) A "structure for human occupancy" is any structure used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year.

(f) "Story" is that portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. For the purpose of the Act and this subchapter, the number of stories in a building is equal to the number of distinct floor levels, provided that any levels that differ from each other by less than two feet shall be considered as one distinct level.

3602. Review of Preliminary Maps.

(a) The Board shall provide an opportunity for receipt of public comments and recommendations during the ninety (90) day period provided by Public Resources Code Section 2622, which shall include at least one public meeting scheduled for that purpose.

(b) Following the end of the 90-day review period, the Board shall forward its comments and recommendations, with supporting data received, to the State Geologist for consideration prior to his officially issuing the maps. NOTE: Authority cited: Section 2621.5, Public Resources Code. Reference: Section 2622, Public Resources Code.

3603. Specific Criteria.

The following specific criteria shall apply within special studies zones and shall be used by affected lead agencies in complying with the provisions of the act:

(a) No structure for human occupancy, identified as a project under Section 2621.6 of the Act, shall be permitted to be placed across the trace of an active fault. Furthermore, as the area within fifty (50) feet of such active faults shall be presumed to be underlain by active branches of that fault unless proven otherwise by an appropriate geologic investigation and report prepared as specified in Section 3603(d) of this subchapter, no such structures shall be permitted in this area.

(b) Affected lead agencies, upon receipt of official special studies zones maps, shall provide for disclosure of delineated special studies zones to the public. Such disclosure may be by reference in general plans, specific plans, property maps, or other appropriate local maps.

(c) No change in use or character of occupancy, which results in the conversion of a building or structure from one not used for human occupancy to one that is so used, shall be permitted unless the building or structure complies with the provisions of the Act.

(d) Application for a development permit for any project within a delineated special studies zone shall be accompanied by a geologic report prepared by a geologist registered in the State of California, which is directed to the problem of potential surface fault displacement through the project site, unless such report is waived pursuant to Section 2623 of the Act. The required report shall be based on a geologic investigation designed to identify the location, recency, and nature of faulting that may have affected the project site in the past and may affect the project site in the future. The report may be combined with other geological or geotechnical reports.

(e) A geologist registered in the State of California, within or retained by each lead agency, shall evaluate the geologic reports required herein and advise the lead agency.

(f) One (1) copy of all such geologic reports shall be filed with the State Geologist by the lead agency within thirty (30) days following the report's acceptance. The State Geologist shall place such reports on open file.

NOTE: Authority cited: Section 2621.5, Public Resources Code. Reference: Sections 2621.5, 2622, 2623, and 2625(c), Public Resources Code.

E. THE HOSPITAL SEISMIC SAFETY ACT

The Hospital Seismic Safety Act is found in the California Health and Safety code sections 15001-15095. The original Act in 1972 (SB 519) called for independent State review of all hospital construction or additions or modifications (new construction) and created a hospital building account in the Architecture and Public Building Fund. Amendments in 1976 (AB 1843) redefined hospital to exclude outpatient clinics not attached to a hospital building, skilled nursing facility or intermediate care facility in single-story, wood-frame or light steel frame structures.

Amendments in 1982 (SB 961) changed the name to the Hospital Seismic Safety Act of 1983 and gave the State preemption over local governments to regulate the construction of hospital buildings. This report also includes recently amended portions of the code (since 1984) See sections 15026.5-15075 below.

CHAPTER 1. HOSPITALS

ARTICLE 1. GENERAL PROVISIONS

§ 15000. Short title

This chapter shall be known and may be cited as the Hospital Seismic Safety Act of 1983. (Amended by Stats.1984, c. 1344, § 1.)

ARTICLE 2. DEFINITIONS

Section

15026.5. Light steel frame construction.

§ 15026. Hospital building

(a) (1) "Hospital building" includes any building not specified in subdivision (b) which is used, or designed to be used, for a health facility of a type required to be licensed pursuant to Chapter 2 (commencing with Section 1250) of Division 2.

(2) Hospital building includes a correctional treatment center, as defined in subdivision (j) of Section 1250, the construction of which was completed on or after March 7, 1973. This paragraph shall remain operative only until January 1, 1993.

(b) "Hospital building" does not include any of the following:

(1) Any building in which only outpatient clinic services are provided and which is separated from a building in which hospital services are provided.

(2) Any building used, or designed to be used, for a skilled nursing facility or intermediate care facility if the building is of single-story, wood-frame or light steel frame construction.

(3) Any building of single-story, wood-frame or light steel frame construction in which only skilled nursing or intermediate care services are provided if the building is separated from a building housing other patients of the health facility receiving higher levels of care.

(4) Any freestanding structures of a chemical dependency recovery hospital exempted under the provisions of subdivision (c) of Section 1275.2.

(5) Any building licensed to be used as an intermediate care facility/developmentally disabled habilitative with six beds or less and any intermediate care facility/developmentally disabled habilitative of 7 to 15 beds which is a single-story, wood-frame or light steel frame building.

(6) Any building which has been used as a community care facility licensed pursuant to Chapter 3 (commencing with Section 1500) of Division 2 and which was originally licensed to provide that level of care prior to March 7, 1973, if (A) the building complied with applicable building and safety standards at the time of that licensure, (B) the Director of Health Services, upon application, determines that in order to continue to properly serve the facility's existing client population, relicensure as an intermediate care facility/developmentally disabled will be required, and (C) a notice of intent to obtain a certificate of need was filed with the area health planning agency and the Office of Statewide Health Planning and Development on or before March 1, 1983. The exemption provided in this paragraph extends only to use of the building as an intermediate care facility/developmentally disabled.

(7) Any building which has been used as a community care facility pursuant to paragraph (1) or (2) of subdivision (a) of Section 1502 and which was originally licensed to provide that level of care if all of the following conditions are satisfied:

(A) The building complied with applicable building and safety standards for a community care facility at the time of that licensure.

(B) The facility conforms to the 1973 Edition of the Uniform Building Code of the International Conference of Building Officials as a community care facility.

(C) The facility is other than single story, but no more than two stories, and the upper story is licensed for ambulatory patients only.

(D) A certificate of need was granted prior to July 1, 1983, for conversion of a community care facility to an intermediate care facility.

(E) The facility otherwise meets all nonstructural construction standards for intermediate care facilities in existence on the effective date of this act or obtains waivers from the appropriate agency.

The exemption provided in this paragraph extends only to use of the building as an intermediate care facility as defined in subdivision (d) of Section 1250 and the facility is in Health Facilities Planning Area 1420.

(8) Any building licensed as a correctional treatment center, as defined in subdivision (j) of Section 1250, the construction of which was completed prior to March 7, 1973. This paragraph shall remain operative only until January 1, 1993.

(Amended by Stats.1984, c. 78, § 1, urgency, eff. April 9, 1984; Stats.1984, c. 1344, § 2; Stats.1984, c. 1587, § 1, urgency, eff. Sept. 30, 1984; Stats.1984, c. 1587, § 2, urgency, eff. Sept. 30, 1984, operative Jan. 1, 1985; Stats.1987, c. 1282, § 6.)

§ 15026.5. Light steel frame construction

"Light steel frame construction" means building construction using bearing walls composed of light gauge steel studs for its primary vertical support systems.

(Added by Stats.1984, c. 1344, § 3.)

ARTICLE 3. GENERAL REQUIREMENTS AND ADMINISTRATION

§ 15044. Assessment of nature of site and potential for damage; exemption; waiver

(a) Except as otherwise provided in subdivision (b), plans submitted pursuant to this chapter for work which affects structural elements shall contain an assessment of the nature of the site and potential for earthquake damage, based upon geologic and engineering investigations and reports by competent personnel of the causes of earthquake damage. One-story Type V wood frame or light steel frame, or light steel and wood frame construction of 4,000 square feet or less, shall be exempt from the provisions of this section, unless the project is within a special study zone established pursuant to Section 2622 of the Public Resources Code.

(b) The requirements of subdivision (a) may be waived by the statewide office when the statewide office determines that these requirements for the proposed hospital project are unnecessary and would not be beneficial to the safety of the public. The statewide office, after consultation with the Building Safety Board, shall adopt regulations defining the criteria upon which the determination of a waiver shall be made.

(Amended by Stats.1984, c. 1344, § 4.)

§ 15046. Filing fee; amount; annual permit; refunds; regulations

The application shall be accompanied by a filing fee in an amount which the statewide office determines will cover the costs of administering this chapter. The fee shall not exceed 2 percent of the estimated construction cost. The fee shall be established in accordance with applicable procedures established in Article 5 (commencing with Section 11346) of Chapter 3.5 of Part 1 of Division 3 of Title 2 of the Government Code.

The minimum fee in any case shall be two hundred fifty dollars (\$250).

The statewide office shall issue an annual permit upon submission, pursuant to Section 15042, of an application for a project only if its estimated construction cost is twenty-five thousand dollars (\$25,000) or less. The cost of this annual permit shall be two hundred fifty dollars (\$250) and this fee shall constitute the filing fee and shall cover all projects undertaken for a particular skilled nursing or intermediate care facility by the applicant up to an estimated construction cost of twenty-five thousand dollars (\$25,000) during the state fiscal year in which the annual permit is issued. The fees for projects over the twenty-five thousand dollars (\$25,000) limit shall be assessed at a rate established by the statewide office in regulation. However, the rate established by the statewide office shall not exceed 1.5 percent of the estimated construction cost for projects of skilled nursing and intermediate care facilities, as defined in subdivision (c), (d), (e), or (g) of Section 1250.

If the actual construction cost exceeds the estimated construction cost by more than 5 percent, a further fee shall be paid to the statewide office, based on the above schedule and computed on the amount by which the actual cost exceeds the amount of the estimated cost. If the estimated construction cost exceeds the actual construction cost by more than 5 percent, the statewide office shall refund the excess portion of any paid fees, based on the above schedule and computed on the amount by which the estimated cost exceeds the amount of the actual cost. A refund shall not be required if the applicant did not complete construction or alteration of 75 percent of the square footage included in the project, as contained in the approved drawings and specifications for the project. In addition, the statewide office shall adopt regulations specifying other circumstances in which the statewide office shall refund to an applicant all or part of any paid fees for projects submitted under this division. The regulations shall include, but not be limited to, refunds of paid fees for a project which is determined by the statewide office to be exempt or otherwise not reviewable under this division, and for a project which is withdrawn by the applicant prior to the commencement of review by the statewide office of the drawing and specifications submitted for the project. All refunds pursuant to this section shall be paid from the Hospital Building Account in the Architecture Public Building Fund, as established pursuant to Section 15047.

(Amended by Stats.1984, c. 1557, § 1; Stats.1986, c. 1084, § 2.)

§ 15050. Requirements for contract validity and payment

No contract for the construction or alteration of any hospital building, made or executed on or after January 1, 1983, by the governing board or authority of any hospital or other similar public board, body, or officer otherwise vested with authority to make or execute such a contract, is valid, and no money shall be paid for any work done under such a contract or for any labor or materials furnished in constructing or altering any such building unless all of the following requirements are satisfied:

- (a) The plans and specifications comply with * * * this chapter and the requirements prescribed by the statewide office.
- (b) The approval thereof in writing has first been had and obtained from the statewide office.
- (c) The hospital building is to be accessible to, and usable by, the physically handicapped.
- (d) The plans and specifications comply with the fire and panic safety requirements of the State Fire Marshal.

(Amended by Stats.1984, c. 1344, § 5.)

§ 15051. Inspections; inspectors

(a) The hospital governing board or authority shall provide for and require competent and adequate inspection during construction or alteration by an inspector satisfactory to the architect or structural engineer, or both, and the statewide office. Except as otherwise provided in subdivision (b), the inspector shall act under the direction of the architect or structural engineer, or both, and be responsible to the board or authority. Nothing in this section shall be construed to prohibit any licensed architect, structural engineer, mechanical engineer, electrical engineer, or any facility maintenance personnel, if approved by the statewide office, from performing the duties of an inspector.

(b) Where alterations or repairs are to be conducted under the supervision of a professional engineer pursuant to Section 15048, the inspector need only be satisfactory to the statewide office and to the professional engineer, and the inspector shall act under the direction of the professional engineer.

(c) In approving any inspector, the statewide office shall consult with the Department of General Services.

(d) The statewide office shall make an inspection of the hospital buildings and of the work of construction or alteration as in its judgment is necessary or proper for the enforcement of this chapter and the protection of the safety of the public. Structural, fire, and panic safety elements and details shall be inspected by the statewide office through its contracts with the Department of General Services and the office of the State Fire Marshal.

(Amended by Stats.1984, c. 1557, § 2.)

§ 15056. Contracts and agreements; review and inspection; regulations

The statewide office may enter into any agreements and contracts with any qualified person, department, agency, corporation, or legal entity, as determined by the statewide office, when necessary in order to facilitate the timely performance of the duties and responsibilities relating to the review and inspection of architectural, mechanical, electrical, and plumbing systems of hospital buildings to be constructed or altered or buildings under construction or alteration.

If the Chief Structural Engineer of the Department of General Services determines that the structural review of plans for a hospital building cannot be completed without undue delay, the statewide office shall have the authority, with the written concurrence of the Department of General Services, to enter into contractual agreements with private structural engineers or local governments for the purpose of facilitating the timely performance of the duties and responsibilities relating to the review and inspection of plans and specifications of the structural systems of hospital construction projects.

The statewide office, with the advice of the Building Safety Board, shall prepare regulations, containing qualification criteria, for implementing the contractual agreement provisions of this section.

(Amended by Stats.1984, c. 1587, § 3, urgency, eff. Sept. 30, 1984, operative Jan. 1, 1985.)

ARTICLE 4. SPECIAL REQUIREMENTS

Section

15075. Alternative to review and approval by statewide office of plans for construction or alteration of buildings; certification of conformity; observation of construction and alteration; legislative intent.

§ 15071. Single-story wood frame buildings; conformity to code; regulations for review; exemption from plan review; flexibility in seismic safety standards

New construction of buildings specified in paragraphs (2) and (3) of subdivision (b) of Section 15026 shall conform to the provisions of the latest edition of Title 24 of the California Administrative Code. The statewide office, with the advice of the Building Safety Board, shall adopt and administer regulations for the independent review of these structures.

The statewide office may also exempt from the plan review process those projects undertaken by an applicant for a hospital building which the statewide office determines do not materially alter the mechanical, electrical, architectural, or structural integrity of the facility. The statewide office shall adopt regulations for the implementation of exemptions made pursuant to this paragraph.

The Legislature recognizes the relative safety of single-story, wood frame, and light steel frame construction for use in housing patients requiring skilled nursing and intermediate care services and it is, therefore, the intent of the Legislature to provide for reasonable flexibility in seismic safety standards for these structures.

(Amended by Stats.1984, c. 1344, § 6; Stats.1984, c. 1557, § 4.)

§ 15075. Alternative to review and approval by statewide office of plans for construction or alteration of buildings; certification of conformity; observation of construction and alteration; legislative intent

Notwithstanding any other provision of law, plans for the construction or alteration of any hospital building, or any building specified in Section 15071, which are prepared by or under the supervision of the Department of General Services shall not require the review and approval of the statewide office. In lieu of review and approval by the statewide office, the Department of General Services shall certify to the statewide office that the plans are in full conformance with all applicable building standards and the requirements of this chapter. The Department of General Services shall also observe all aspects of construction and alteration, including the architectural, structural, mechanical, plumbing and electrical systems.

It is the intent of the Legislature that projects developed by, or under the supervision of, the Department of General Services shall still meet all applicable building standards published in the State Building Standards Code relating to the regulation of hospital projects where applicable, and all regulations adopted pursuant to this chapter and all other applicable state laws.

(Added by Stats.1984, c. 268, § 27.58, urgency, eff. June 30, 1984.)

F. SCHOOLS

The Office of the State Architect has made available an informal report containing a brief history of and actual code sections relating to schools, hospitals and building codes; much of the following is taken directly from that report. Those who desire more information may contact that office: P.O. Box 1079, Sacramento, CA 95814; (916) 445-0584.

1. Field Act

The Field Act of 1933 is, perhaps, the most important legislation applicable to public schools. Enactment was precipitated by the 1933 Long Beach earthquake, an event that caused major damage to schools in the Long Beach area.

It provides for the establishment of a procedure to be followed in the design and construction or alteration of public schools buildings used for elementary, secondary or community college purposes for the protection of life and property. The State Supreme Court has held the Act to be broad and comprehensive and includes the whole field of construction regulations.

The principal provisions of the Act require that:

1. Plans be prepared by a qualified person who knows the principles of structural engineering.
2. Design be checked by an independent State agency and design errors or omissions be corrected on plans before contract for construction is let.
3. Construction be continuously inspected by a qualified person in the employment of the school board.
4. The responsible architect or structural engineer shall supervise the work.
5. All concerned parties must file verified reports that approved plans were compiled with in construction of the school building.

The Field Act originally did not apply to private schools, however, in 1986 the State added the Earthquake Construction of Private Schools section to the Education Code (sections 39160-39176; see below).

The Field Act is found in the Education Code sections 39140 through 39157 (K-12 schools) and sections 81130 through 81147 (Community Colleges). Prior to reorganization of the Education Code in the late 70's, the Field Act contained administrative and technical provisions for the construction of school buildings. Reorganization removed all administrative portions and added building code requirements to Title 24 of the California Administrative Code (CAC). Title 21 CAC contains the operational regulations for both the Structural Safety and the Access Compliance Sections of the Field Act.

ARTICLE 3.5
Earthquake Construction of Private Schools
[Added by Stats 1986 ch 439 § 1.]

§ 39160. Citation of article

This article shall be known and may be cited as the Private Schools Building Safety Act of 1986.
Added Stats 1986 ch 439 § 1.

§ 39161. Legislative findings

The Legislature finds and declares all of the following:

- (a) Most of California is subject to potentially devastating, large-magnitude earthquakes.
- (b) Earth scientists estimate that there is a greater than 50-percent probability that one or more damaging earthquakes will occur in California between now and the end of the century.
- (c) Not all students of private schools enjoy the same or equivalent earthquake safety as is afforded to students of public schools by the Field Act and other legislation.
- (d) Modifications of building design, plan checking, and inspection procedures can offer increased protection to private school students.

Added Stats 1986 ch 439 § 1.

§ 39162. Legislative intent

It is the intent of the Legislature that children attending private schools be afforded life safety protection similar to that of children attending public schools by having all of the following:

- (a) Private school structures designed and constructed in a manner that minimizes fire hazards and resists the forces generated by earthquakes, gravity, and winds to the extent necessary to ensure the safety of occupants.
- (b) The structural systems and details set forth in working drawings and specifications carefully reviewed by responsible enforcement agencies using qualified personnel, and the construction process carefully inspected.
- (c) Procedures for the design and construction of private school structures to be subjected to qualified design review and construction inspection.
- (d) Nonstructural components, including, but not limited to, ceiling systems, electrical equipment, and mechanical equipment given adequate consideration during the design and construction process to assure that they will not detract from occupant safety in the event of an earthquake.

Added Stats 1986 ch 439 § 1.

§ 39163. Definitions

For the purposes of this article:

- (a) "Construction or alteration" means any construction of, addition to, reconstruction of, or structural alteration to any private school structure.
- (b) "Enforcement agency" means the agency of a city, city and county, or county responsible for building safety within its jurisdiction.
- (c) "Private school structure" means any building used for educational purposes through the 12th grade by 50 or more persons for more than 12 hours per week or 4 hours in any one day. Any structure owned or operated by a public school district shall not be affected by this article.
- (d) "Structural engineer" means a person authorized to use the title of structural engineer under Chapter 7 (commencing with Section 6700) of Division 3 of the Business and Professions Code.
- (e) "Engineer of record" means the architect, if no structural engineer or civil engineer has been retained for the structural design.
- (f) "Electrical engineer" means an electrical engineer, as defined in Section 6702.1 of Chapter 7 of Division 3 of the Business and Professions Code.
- (g) "Mechanical engineer" means a mechanical engineer, as defined in Section 6702.2 of Chapter 7 of Division 3 of the Business and Professions Code.
- (h) "Qualified inspector" means a person who is currently certified by the International Conference of Building Officials or who has demonstrated his or her competence to the satisfaction of the enforcement agency as having expertise and experience in the particular type of construction or operation requiring inspection.

Added Stats 1986 ch 439 § 1.

§ 39164. Review by enforcement agency

The appropriate enforcement agency that meets the requirements of Sections 39171 and 39172 shall review the design and inspect the construction, reconstruction, structural alteration, or addition to any private school structure to the extent necessary to ensure that drawings and specifications comply with the applicable sections of the Uniform Building Code and to ensure that construction work has been performed in accordance with the approved drawings and specifications, and the provisions of this article.

Added Stats 1986 ch 439 § 1.

§ 39165. Exemptions

Private school structures of one-story Type V and Type II N Construction, as defined by the Uniform Building Code, that are 2,000 square feet or less in floor area are exempt from the provisions of this article.

Added Stats 1986 ch 439 § 1.

§ 39166. Submission of plans for approval

(a) Prior to adopting any drawings or specifications for the private school structure, the governing board, authority, owner, corporation, or other agency proposing to construct any private school structure shall submit the design calculations, drawings, and specifications of the private school structure to the appropriate enforcement agency. The enforcement agency shall stamp the drawings and specifications if the construction or alteration is approved by the enforcement agency. Included with the stamp shall be the signature of the qualified person referred to in Sections 39173 and 39174.

(b) The provisions of this section are not applicable to private school construction or alteration contracts entered into prior to July 1, 1987.

Added Stats 1986 ch 439 § 1.

§ 39167. Documents to accompany application

The application for approval of the drawings and specifications for private school structures shall be accompanied by comprehensive and complete drawings, design calculations, specifications, and a soil analysis at a level of detail appropriate to the proposed structure and site, all of which shall comply with the requirements prescribed by the enforcement agency. This review shall not preclude incremental submission and approval of drawings and specifications.

Added Stats 1986 ch 439 § 1.

§ 39168. Review of drawings and specifications to ensure compliance with article

The enforcement agency shall approve or reject all drawings and specifications for the construction or alteration of private school structures and in doing so shall review the submitted design calculations, drawings, and specifications to ensure compliance with the requirements of this article. A record shall be kept by the enforcement agency indicating that design calculations, drawings, and specifications have been reviewed and conform with the applicable sections of the Uniform Building Code.

Added Stats 1986 ch 439 § 1.

§ 39169. Responsibility of architect or engineer

All drawings and specifications shall be prepared under the responsible charge of an architect, civil engineer, or structural engineer, who shall sign all drawings and specifications that are to be approved by the enforcement agency. Observation of the work of construction shall be under the general responsible charge, as defined by Section 6703 of Chapter 7 of Division 3 of the Business and Professions Code, of the architect, civil engineer, or structural engineer who signed the drawings, except that drawings and specifications not involving architectural or structural conditions may be prepared and the construction work may be administered by a registered professional engineer qualified in the branch of engineering that is appropriate to the drawings, specifications, estimates, and construction work.

If the architect, civil engineer, or structural engineer is unable to exercise general responsible charge of construction another architect, civil engineer, or structural engineer shall be retained to exercise general responsible charge of construction.

Added Stats 1986 ch 439 § 1.

§ 39170. (First of two; Article 3.5) New construction

Except as provided in Section 39166, on or after July 1, 1987, construction of a private school structure shall not commence unless the structure's drawings and specifications comply with the provisions of this article and the requirements prescribed by the enforcement agency, and approval of those drawings and specifications has been obtained from the enforcement agency.

Added Stats 1986 ch 439 § 1.

§ 39170. (Second of two; Article 4) General power of district governing board.

The governing board of any school district may, and when directed by a vote of the district shall, build and maintain a schoolhouse.

Enacted Stats 1976 ch 1010 § 2, operative April 30, 1977.

§ 39171. Inspection during construction or alteration

During construction or alteration of a private school structure, the building owner shall provide for, and the local enforcement agency shall require, special inspection by a qualified inspector when needed, as determined by the local enforcement agency. Continuous inspection is not required.

Added Stats 1986 ch 439 § 1.

§ 39172. (First of two; Article 3.5) Qualification of local enforcement agency to review plans

An enforcement agency is qualified to undertake the review of plans, drawings, and specifications for a private school structure if the enforcement agency has a structural engineer, either on its staff or under contract, that is responsible for all design review conducted by the enforcement agency and the record prepared under Section 39168.

Added Stats 1986 ch 439 § 1.

§ 39172. (Second of two; Article 4) Establishment of additional schools.

The governing board of any school district, whenever in its judgment it is desirable to do so, may establish additional schools in the district.

Enacted Stats 1976 ch 1010 § 2, operative April 30, 1977.

§ 39173. (First of two; Article 3.5) Enforcement agencies without qualified personnel

A jurisdiction whose enforcement agency does not meet the qualifications specified in Sections 39171 and 39172 shall obtain necessary qualified personnel to meet the requirements of this article by contracting with other public agencies, private sector firms, or individuals qualified to perform the necessary services.

Added Stats 1986 ch 439 § 1.

§ 39173. (Second of two; Article 4) Power to purchase property and construct and equip buildings before effective annexation of the area.

The governing board of any school district may purchase property and construct and equip buildings in an area after the legal action has been taken that will result in annexation of the area to the school district, but before the annexation has become effective.

Enacted Stats 1976 ch 1010 § 2, operative April 30, 1977.

§ 39174. Periodic review of construction by engineer of record

During the construction of a private school structure, the enforcement agency shall require the engineer of record responsible for the structural design, or that engineer's authorized representative, to make periodic reviews of construction at the construction site to observe compliance with the approved structural plans, specifications, and change orders. The engineer of record in general responsible charge of the work of construction, and the registered professional engineer shall make a report, duly verified by him or her through periodic review of construction, showing that the work done during the period covered by the report has been performed and that the materials used and installed are in accordance with the approved drawings and specifications. Any detailed statements of fact required by the enforcement agency shall be included. These observations and statements shall not be relied upon by others as acceptance of the work, nor shall they be construed to relieve the contractor in any way of his or her obligations and responsibilities under the construction contract.

"Periodic review of construction," as used in this section and as applied to the architect, civil engineer, structural engineer, or the registered professional engineer, means the knowledge that is obtained from periodic visits of reasonable frequency to the project site for the purpose of general observation of the work. It also means the knowledge that is obtained from the reporting of others as to the progress of the work, testing of materials, inspection, and superintendence of the work that is performed between those periodic visits of the architect, civil engineer, or structural engineer, or the registered engineer. The exercise of reasonable diligence to obtain the facts is required. "Periodic review of construction" does not include responsibility for superintendence of construction processes, site conditions, operations, equipment, personnel, or maintenance of a safe place to work or any safety in, on, or about the site of work.

Added Stats 1986 ch 439 § 1.

§ 39175. Certificate of Occupancy

Prior to the issuance of a Certificate of Occupancy, the engineer of record shall state in writing to the enforcement agency that, in exercising his or her reasonable professional judgment and to the best of his or her knowledge, information, and belief, the private school structure was constructed in substantial conformity with the approved plans and specifications.

Added Stats 1986 ch 439 § 1.

§ 39176. Violation of chapter as misdemeanor

Any person who willfully violates this chapter is guilty of a misdemeanor.

Added Stats 1986 ch 439 § 1.

2. Garrison Act

The Garrison Act of 1939 is found (as subsequently amended) in the reorganized Education Code Sections 39210 through 39234 (K-12 schools) and 81160 through 81192 (Community Colleges).

As originally enacted, it provided for the corrective steps a school board must take if a school building were found to be unsafe. It also provided that if, after taking the required steps (generally related to holding elections to provide funds for repairs), the electorate did not authorize the board to sell bonds or increase taxes and if the district had no other funds available to make repairs, the board members were not to be held personally liable for continued use of the unsafe building. No time limit was established.

In 1963 the provisions which specifically absolved the board members of personal liability were repealed.

In 1967 the Act was amended to:

1. require examination, prior to January 1, 1970, of all school buildings used for school purposes which were not constructed under the Field Act; and,
2. provided immunity to personal liability for school board members upon initiating action to examine such buildings.

In 1968 the Act was amended to require abandonment of unsafe school buildings by June 30, 1975. In 1974 the Act was amended to allow the use of unsafe buildings until June 30, 1977 under certain conditions.

§ 39225. Liability of governing board members. Except as provided in Section 39226, nothing in this article shall be construed as relieving any member of the governing board of a school district of any liability for injury to persons or damage to property imposed by law.

Enacted Stats 1976 ch 1010 § 2, operative April 30, 1977.

§ 39226. Limitation of liability of governing board. No member of the governing board of a school district shall be held personally liable for injury to persons or damage to property resulting from the fact that a school building was not constructed under the requirements of Article 3 (commencing with Section 39140) of this chapter, if such governing board complies with the provisions of this article. Such limit on liability shall commence when such governing board initiates action to comply with the provisions of Section 39212.

A licensed structural engineer or licensed architect employed by a governing board to examine any school building under this article shall not be held personally liable for injury to persons or damage to property as a result of the structural inadequacy and failure of a building, provided he has exercised normal professional diligence in carrying out his functions under Article 3 (commencing with Section 39140) of this chapter and the provisions of this article.

Enacted Stats 1976 ch 1010 § 2, operative April 30, 1977.

Cross References:

Architecture generally: B & P C §§ 5500 et seq.

Professional engineers: B & P C §§ 6700 et seq.

Collateral References:

Attorney General's Opinions:

50 Ops Atty Gen 75 (liability of school districts, notwithstanding compliance with Field Act, for injury caused by dangerous condition of pre-1933 school building).

3. The Katz Bill

The "Katz Bill" of 1984 (AB 2786) created section 35295 of the Education Code (see below) concerning Earthquake Emergency Procedures in schools. A major provision of the legislation included a call for increased support and encouragement of the effort to reduce earthquake hazards. The legislation requires all public and private, elementary and high schools to develop school disaster plans and specify an earthquake emergency procedure system. It also mandates the establishment of earthquake emergency procedure system in every public and private school having more than 50 occupants and/ or more than one classroom. However, this legislation lacks provisions for non-compliance.

The Katz Bill also amended sections 40041- 40042 of the Education Code (as shown below), requiring the use of school buildings for mass care and welfare shelters during disasters or emergencies at the request of public agencies, including the American Red Cross.

ARTICLE 10.5

Earthquake Emergency Procedures

[Added by Stats 1984 ch 1659 § 1.]

§ 35295. Legislative findings and declarations

§ 35296. Establishment of emergency procedure system

§ 35297. Elements of emergency procedures system

§ 35295. Legislative findings and declarations

The Legislature finds and declares the following:

(a) Because of the generally acknowledged fact that California will experience moderate to severe earthquakes in the foreseeable future, increased efforts to reduce earthquake hazards should be encouraged and supported.

(b) In order to minimize loss of life and disruption, it is necessary for all public or private elementary schools and high schools to develop school disaster plans and specifically an earthquake emergency procedure system so that students and staff will act instinctively and correctly when an earthquake disaster strikes.

(c) It is therefore the intent of the Legislature in enacting this article to authorize the establishment of earthquake emergency procedure systems in kindergarten and grades 1 through 12 in all the public or private schools in California.

Added Stats 1984 ch 1659 § 1.

§ 35296. Establishment of emergency procedure system

The governing board of each private school and school district and the county superintendent of schools of each county shall establish an earthquake emergency procedure system in every public or private school building under its jurisdiction having an occupant capacity of 50 or more students or more than one classroom. Governing boards and county superintendents may work with the Office of Emergency Services and the Seismic Safety Commission to develop and establish the earthquake emergency procedure systems.

Added Stats 1984 ch 1659 § 1.

§ 35297. Elements of emergency procedure system

The earthquake emergency procedure system shall include, but not be limited to, all of the following:

(a) A school building disaster plan, ready for implementation at any time, for maintaining the safety and care of students and staffs.

(b) A drop procedure. As used in this article, "drop procedure" means an activity whereby each student and staff member takes cover under a table or desk, dropping to his or her knees, with the head protected by the arms, and the back to the windows. A drop procedure practice shall be held at least once each school quarter in elementary schools and at least once a semester in secondary schools.

(c) Protective measures to be taken before, during, and following an earthquake.

(d) A program to ensure that the students and staff are aware of, and properly trained in, the earthquake emergency procedure system.

ARTICLE 2

Use of School Property

[Added by Stats 1982 ch 1502 § 5.]

§ 40040. Citation

This article shall be known and may be cited as the Civic Center Act.

Added Stats 1982 ch 1502 § 5.

Former Section: Former § 40040, similar to present § 40041, was repealed by Stats 1982 ch 1502 § 4.

What constitutes accessory or incidental use of religious or educational property within zoning ordinance. 11 ALR4th 1084.

§ 40041. Creation of civic centers at public schools; Grant of use; Purposes

(a) There is a civic center at each and every public school facility and grounds within the state where the citizens, parent-teachers' associations, camp fire girls, boy scout troops, farmers' organizations, school-community advisory councils, senior citizens' organizations, clubs, and associations formed for recreational, educational, political, economic, artistic, or moral activities of the public school districts may engage in supervised recreational activities, and where they may meet and discuss, from time to time, as they may desire, any subjects and questions which in their judgment pertain to the educational, political, economic, artistic, and moral interests of the citizens of the communities in which they reside.

(b) The governing board of any school district may grant the use of school facilities or grounds as a civic center upon the terms and conditions the board deems proper, subject to the limitations, requirements, and restrictions set forth in this article, for any of the following purposes:

- (1) Public, literary, scientific, recreational, educational, or public agency meetings.
- (2) The discussion of matters of general or public interest.
- (3) The conduct of religious services for temporary periods, on a one-time or renewable basis, by any church or religious organization which has no suitable meeting place for the conduct of the services, provided the governing board charges the church or religious organization using the school facilities or grounds a fee as specified in subdivision (c) of Section 40043.
- (4) Child care or day care programs to provide supervision and activities for children of preschool and elementary school age.
- (5) The administration of examinations for the selection of personnel or the instruction of precinct board members by public agencies.
- (6) Supervised recreational activities.
- (7) Other purposes deemed appropriate by the governing board.

Added Stats 1982 ch 1502 § 5; Amended Stats 1984 ch 1659 § 2; Stats 1985 ch 729 § 1.

Prior Law: Former §§ 40040, 40045-40048.

Amendments:

1984 Amendment: (1) Substituted "pertain" for "appertain" after "their judgment" in subd (a); and (2) deleted former subd (b)(7) which read: "(7) Mass care and welfare shelters during disasters or other emergencies affecting the public health and welfare by public agencies, including, but not limited to, the American Red Cross; and the provision of any services deemed necessary by the governing board to meet the needs of the community."

1985 Amendment: Added ", on a one-time or renewable basis," in subd (b)(3).

Former Section: Former § 40041, similar to the present § 40042, was repealed by Stats 1982 ch 1502 § 4.

§ 40041.5. Use of school buildings for mass care and as welfare shelters during disasters or other public emergencies

Notwithstanding Section 40043, the governing board of any school district shall grant the use of school buildings, grounds, and equipment to public agencies, including the American Red Cross, for mass care and welfare shelters during disasters or other emergencies affecting the public health and welfare. The governing board shall cooperate with these agencies in furnishing and maintaining such services as the governing board may deem necessary to meet the needs of the community.

Added Stats 1984 ch 1659 § 3.

§ 40042. Management, direction and control by governing board; Promulgation of rules and regulations

The management, direction, and control of school facilities under this article is vested in the governing board of the school district which shall promulgate all rules and regulations necessary to provide, at a minimum, for the following:

- (1) Aid, assistance, and encouragement to any of the activities authorized in Sections 40041 and 40041.5.
- (2) Preservation of order in school facilities and on school grounds, and protection of school facilities and school grounds, including, if the governing board deems necessary, appointment of a person who shall have charge of the school facilities and grounds for purposes of their preservation and protection.
- (3) That the use of school facilities or grounds is not inconsistent with the use of the school facilities or grounds for school purposes or interferes with the regular conduct of schoolwork.

Added Stats 1982 ch 1502 § 5; Amended Stats 1984 ch 1659 § 4.

Prior Law: Former §§ 40041, 40049-40051.

4. Requirements for Geological and Soils Engineering Studies

The California Education Code, sections 39002 and 39002.5 (see below), contains provisions for special studies for proposed school building sites and major alterations to existing school buildings. Provisions require that prior to acquisition of any proposed school site, the site shall be investigated for "all factors affecting the public interest and ... not limited to the selection on the basis of raw land cost only." If the site is within a special study zone or in an area designated as geologically hazardous in the safety element of the local general plan, then a geological and soil engineering study of the site is required. The study must assess the nature of the site and the risk of earthquake or other geologic hazard damage. Results from these investigations must show that the construction effort required to make the school building safe for occupancy is economically feasible. No report is required if the site has been the subject of adequate prior studies of this type.

In addition, section 39002.5 states that "no school building shall be constructed, reconstructed, or relocated on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building".

§ 39002. Investigation of prospective school site; Inclusion of geological and engineering studies

The governing board of a school district, prior to acquiring any site on which it proposes to construct any school building as defined in Section 39141 shall have the site, or sites, under consideration investigated by competent personnel to ensure that the final site selection is determined by an evaluation of all factors affecting the public interest and is not limited to selection on the basis of raw land cost only. If the prospective school site is located within the boundaries of any special studies zone or within an area designated as geologically hazardous in the safety element of the local general plan as provided in subdivision (g) of Section 65302 of the Government Code, the investigation shall include any geological and soil engineering studies by competent personnel needed to provide an assessment of the nature of the site and potential for earthquake or other geologic hazard damage.

The geological and soil engineering studies of the site shall be of such a nature as will preclude siting of a school in any location where the geological and site characteristics are such that the construction effort required to make the school building safe for occupancy is economically unfeasible. No studies are required to be made if the site or sites under consideration have been the subject of adequate prior studies. The evaluation shall also include location of the site with respect to population, transportation, water supply, waste disposal facilities, utilities, traffic hazards, surface drainage conditions, and other factors affecting the operating costs, as well as the initial costs, of the total project.

For the purposes of this article, a special studies zone is an area which is identified as a special studies zone on any map, or maps, compiled by the State Geologist pursuant to Chapter 7.5 (commencing with Section 2621) of Division 2 of the Public Resources Code. A copy of the report of each investigation conducted pursuant to this section shall be submitted to the State Department of Education.

Amended Stats 1984 ch 1009 § 1.

Amendments:

1984 Amendment: In addition to making technical changes, (1) amended the second sentence of the first paragraph by (a) deleting "seismic" before "safety element"; and (b) substituting "subdivision (g)" for "subdivision (f)"; and (2) substituted "State Department of Education" for "Department of Education" at the end of the section.

§ 39002.5. Geological and soil engineering studies

Geological and soil engineering studies as described in Section 39002 shall be made, within the boundaries of any special studies zone, for the construction of any school building as defined in Section 39141, or if the estimated cost exceeds twenty thousand dollars (\$20,000), for the reconstruction or alteration of or addition to any such school building for work which alters structural elements. The Department of General Services may require similar geological and soil engineering studies for the construction or alteration of any school building on a site located outside of the boundaries of any special studies zone. No such studies need be made if the site under consideration has been the subject of adequate prior studies.

No school building shall be constructed, reconstructed, or relocated on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building.

A copy of the report of each investigation conducted pursuant to this section shall be submitted to the Department of General Services pursuant to Article 3 (commencing with Section 39140) of this chapter and to the Department of Education. The cost of geological and soil engineering studies and investigations conducted pursuant to this section may be treated as a capital expenditure.

G. BUILDING CODES

1. The Riley Act

The Riley Act of 1939 is found in the California Health and Safety Code sections 19100-19183 and provides that all buildings (excluding certain farm type buildings) be constructed to resist stresses produced by lateral forces as specified in Title 24, CAC.

Prior to 1965 the Riley Act itself prescribed lateral design values. In 1965 the Act was amended to refer, instead, to Title 24 for lateral forces. In 1974 the Act was again amended to make reference to a later edition of Title 24. In 1979 an article relating to the reconstruction of earthquake hazardous buildings was added (see below). In 1980 an article governing the installation of seismic gas shut off valves was added.

CHAPTER 2

Earthquake Protection

Article

1. Scope and Application. §§ 19100, 19101
2. Enforcement. §§ 19120–19124
- 2a. Building Permits. §§ 19130–19138
3. Design and Construction. §§ 19150, 19151
4. Earthquake Hazardous Building Reconstruction. §§ 19160–19169
5. Violations. § 19170
6. Seismic Gas Shutoff. §§ 19180–19183

Cross References:

State Building Standards regulations: 24 Cal Adm Code §§ 2-100 et seq.

Collateral References:

Cal Jur 3d Building Regulations § 3.

ARTICLE 1

Scope and Application

- § 19100. Buildings exempted from requirements
§ 19101. Right to establish higher standards

§ 19100. Buildings exempted from requirements

This chapter does not apply to any of the following buildings:

- (a) Any building not intended primarily for occupancy by human beings and located entirely outside the limits of a city or city and county.
- (b) Any building designed and constructed for use exclusively as a

dwelling by not more than two families and located entirely outside the limits of a city or city and county.

(c) Any building designed and constructed primarily for use in housing poultry, livestock, hay, grain, or farm machinery and supplies, even though persons may work in, or may otherwise be present in, such building from time to time.

(d) Any building under construction on and prior to May 26, 1933.

(e) Any building in an unincorporated area and used for human habitation and of wood frame construction and not more than two stories in height, in which the span between bearing walls does not exceed twenty-four feet (24'), no room in which contains an area of more than one thousand square feet (1,000 sq. ft.), and which is located in a labor camp as defined in Section 2410 of the Labor Code.

Enacted 1939; Amended Stats 1955 ch 1491 § 1; Stats 1968 ch 367 § 1.

Prior Law: Stats 1933 ch 601 § 4 p 1532, as amended by Stats 1935 ch 65 § 1 p 402.

Amendments:

1955 Amendment: Added subd (e).

1968 Amendment: Substituted "even though persons may work in, or may otherwise be present in, such building from time to time" for "and located wholly or in part within the limits of a city or city and county" in subd (c).

Note—Lab C § 2410, referred to in above section, was repealed by stats 1965 ch 1274 § 1, effective July 15, 1965.

NOTES OF DECISIONS

Health and Safety Code provisions relating to structural design aimed at procuring buildings less dangerous from standpoint of earthquakes and requiring building permits be obtained from proper city or county officers do not limit or modify provisions of Education Code which set forth complete system for construction of school buildings. *Hall v Taft* (1956) 47 C2d 177, 302 P2d 574.

Riley Act was intended to preserve human life against earthquake damage. *People v Berry* (1956) 147 CA2d 33, 304 P2d 818.

If purpose for which building is constructed requires residence of workers or customers in building, it is not exempt under Riley Act. *People v Berry* (1956) 147 CA2d 33, 304 P2d 818.

Subd (a) applies to buildings intended to be used chiefly or principally for occupancy or use by humans as distinguished from buildings intended

to be used chiefly for some other purpose though humans will enter and be incidentally in buildings. *People v Berry* (1956) 147 CA2d 33, 304 P2d 818.

"Primarily," as used in subd (a), means "chiefly" or "principally." *People v Berry* (1956) 147 CA2d 33, 304 P2d 818.

Word "occupancy," as used in subd (a), means "use" rather than "habitation." *People v Berry* (1956) 147 CA2d 33, 304 P2d 818.

Planing mills, canneries, stores and manufacturing plants subject to Riley Act. *People v Berry* (1956) 147 CA2d 33, 304 P2d 818.

Planing mill building served by seven men and entered by numerous lumber handlers not exempt by subd (a), notwithstanding that no one sleeps, cooks, eats, smokes, or rests in building, and that it is located in unincorporated area. *People v Berry* (1956) 147 CA2d 33, 304 P2d 818.

§ 19101. Right to establish higher standards

Any city, city and county, or county may establish by ordinance construction standards higher than those established by this chapter.

Enacted 1939.

Prior Law: Stats 1933 ch 601 § 7 p 1533.

Collateral References:

Cal Jur 3d Building Regulations §§ 2-6.

ARTICLE 2

Enforcement

- § 19120. Cities
- § 19121. Unincorporated areas
- § 19122. Designation of enforcement agency
- § 19123. Enforcement in absence of designated agency
- § 19124. Enforcement upon failure of enforcement agency to secure correction of violation

Cross References:

Violation as misdemeanor: § 19170.

§ 19120. Cities

The building department of every city and city and county shall enforce this chapter within the city or city and county.

“Building department” means the department, bureau, or officer charged with the enforcement of laws or ordinances regulating the erection, construction, or alteration of buildings.

Enacted 1939.

Prior Law: Stats 1933 ch 601 § 6 p 1532.

Cross References:

“Department” with respect to State Housing Law: § 17920.

Enforcement of provisions of State Housing Law: §§ 17960 et seq.

Collateral References:

Cal Jur 3d Building Regulations §§ 2-6, Labor § 16.

Am Jur 2d Buildings § 2.

NOTES OF DECISIONS

Provisions of this section and of §§ 19150, 19151, relating to structural design aimed at procuring buildings less dangerous from standpoint of earthquakes, do not limit or modify provisions of

§§ 5021, 5041, 18001 et seq., which set forth complete system for construction of public buildings. Hall v Taft (1956) 47 C2d 177, 302 P2d 574.

§ 19121. Unincorporated areas

The department, officer, or officers of a county who are charged with the enforcement of ordinances or laws regulating the erection, construction, or alteration of buildings shall enforce this chapter within the county but outside the territorial limits of any city.

Enacted 1939.

Prior Law: Stats 1933 ch 601 § 6 p 1532.

Cross References:

Enforcement of provisions of State Housing Law: §§ 17960 et seq.

Collateral References:

Cal Jur 3d Building Regulations § 3.

§ 19122. Designation of enforcement agency

Any city or county may, by ordinance, designate any department or officer, other than a department or officer mentioned in this chapter, to enforce all or any part of this chapter.

Enacted 1939.

Prior Law: Stats 1933 ch 601 § 6 p 1532.

§ 19123. Enforcement in absence of designated agency

In any city where there is no department or officer charged with or designated for the enforcement of this chapter, the appropriate department, officer, or officers of the county in which such city is located shall enforce this chapter.

In any county where there is no department or officer charged with or designated for the enforcement of this chapter, this chapter shall be enforced by the county engineer, if there is a county engineer, and if not, then by the county surveyor.

Added Stats 1941 ch 301 § 1.

§ 19124. Enforcement upon failure of enforcement agency to secure correction of violation

The Division of Codes and Standards of the Department of Housing and Community Development may enforce any provision of this chapter or any building standards published in the State Building Standards Code which it finds is being violated in a building hereafter constructed, after it has given the enforcement agency written notice of the violation and the enforcement agency has failed to secure correction of the violation within the following 10 days. In such cases where the division processes applications for building permits, the fees prescribed in this chapter shall be payable to the division.

Added Stats 1955 ch 1775 § 1; Amended Stats 1969 ch 1394 § 1; Stats 1974 ch 859 § 1; Stats 1979 ch 1152 § 169.

Amendments:

1969 Amendment: Substituted "Building and Housing Standards of the Department of Housing and Community Development" for "Housing in the Department of Industrial Relations".

1974 Amendment: Substituted "The Division of Codes and" for "The Division of Building and Housing".

1979 Amendment: Added (1) "or any building standards published in the State Building Standards Code" in the first sentence; and (2) the comma after "permits" in the second sentence.

Cross References:

Fees for building permits: §§ 19132.3–19132.9.

Department of Housing and Community Development: §§ 50400 et seq.

ARTICLE 2a

Building Permits

[Added Stats 1941 ch 301 § 2.]

- § 19130. Necessity for permit
- § 19131. Application for permit
- § 19132. Plans, specifications and fee to be filed with applications
- § 19132.3. Schedule of fees; Adoption of ordinance prescribing fees
- § 19132.5. Fees where work started before permit obtained; Effect of payment
- § 19132.7. Determination of cost of work; Account of fees received; Disposition
- § 19132.9. When fee not required
- § 19133. Issuance of permit
- § 19134. Approval of changes in application, etc.
- § 19135. Revocation of permits; Grounds
- § 19136. Performance of work
- § 19137. Issuance of permit not deemed approval of violation
- § 19138. Application with specific reference to application, plans and specifications filed under State Housing Law

Cross References:

Administration and enforcement of State Housing Law: §§ 17960 et seq.

State Building Standards Code: §§ 18935 et seq.

State Building Standards regulations: 24 Cal Adm Code §§ 2-100 et seq.

Collateral References:

Cal Jur 3d Building Regulations §§ 1–6, Labor § 16.

Am Jur 2d Buildings §§ 8–11, Mandamus § 216.

§ 19130. Necessity for permit

No person shall construct a building subject to this chapter unless he has obtained a written permit for that purpose from the appropriate enforcement agency.

Added Stats 1941 ch 301 § 2.

Cross References:

Enforcement agencies: §§ 19120 et seq.

§ 19131. Application for permit

Any person desiring a permit shall file an application therefor with the appropriate enforcement agency, which application shall contain:

- (a) The name and address of the applicant.
- (b) A detailed written statement of the work to be done.

Added Stats 1941 ch 301 § 2.

§ 19132. Plans, specifications and fee to be filed with applications

The applicant shall file with his application:

- (a) A complete set of the plans of the work proposed.
- (b) A set of specifications describing the materials to be used in the work.
- (c) The fee prescribed for filing an application for a building permit.

Added Stats 1941 ch 301 § 2; Amended Stats 1945 ch 1147 § 1.

Amendments:

1945 Amendment: Added subd (c).

§ 19132.3. Schedule of fees; Adoption of ordinance prescribing fees

The governing body of any county or city, including a charter city, may adopt an ordinance prescribing fees for filing applications pursuant to this chapter, but the fees shall not exceed the amount reasonably required by the local enforcement agency to issue permits pursuant to this chapter, and shall not be levied for general revenue purposes. The fees shall be imposed pursuant to Chapter 13 (commencing with Section 54990) of Part 1 of Division 2 of Title 5 of the Government Code. Where the Department of Housing and Community Development is the enforcement agency, the Commission of Housing and Community Development may establish a schedule of fees to pay the cost of administration and enforcement of this chapter. All rules and regulations promulgated by the commission under the authority of this part shall be promulgated pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

Added Stats 1945 ch 1147 § 2; Amended Stats 1969 ch 1394 § 2; Stats 1981 ch 914 § 9.

Amendments:

1969 Amendment: Prior to 1969 the section read:

"The following are the fees which shall be paid on filing an application for a permit:

"(a) If the work to be done will not exceed fifty dollars (\$50) in cost, no fee is required.

"(b) If the work to be done will exceed fifty dollars (\$50) in cost, the fee is two dollars (\$2) if the cost does not exceed one thousand one dollars (\$1,001), and an additional two dollars (\$2) for each additional one thousand dollars (\$1,000) or fraction thereof in excess of one thousand one dollars (\$1,001) to and including fifteen thousand dollars (\$15,000).

"(c) If the work to be done will exceed fifteen thousand dollars (\$15,000) in cost, the fee is thirty dollars (\$30), and an additional one dollar (\$1) for each additional one thousand dollars (\$1,000) or fraction thereof in excess of fifteen thousand dollars (\$15,000) to and including fifty thousand dollars (\$50,000).

"(d) If the work to be done will exceed fifty thousand dollars (\$50,000) in cost, the fee is sixty-five dollars (\$65) and an additional fifty cents (\$.50) for each additional one thousand dollars (\$1,000) or fraction thereof in excess of fifty thousand dollars (\$50,000).

"Whenever the governing body of any city or county determines that the expenses of the enforcement agency subject to its jurisdiction incurred in the issuing of permits, including examining the applications, plans, and specifications filed with the enforcing agency, are not met by the fees prescribed in this section, such governing body may adopt an ordinance prescribing such fees for filing applications as will pay the expenses of the enforcement agency incurred in issuing permits pursuant to this chapter."

1969 Amendment amended the section to read as at present, except for the 1981 Amendment.

1981 Amendment: (1) Substituted the first sentence for the former first sentence which read: "The governing body of any city or county may adopt an ordinance prescribing fees for filing applications as will pay the expenses of the enforcement agency incurred in issuing permits pursuant to this chapter."; (2) added the second sentence; and (3) substituted "Chapter 3.5 (commencing with Section 11340)" for "Chapter 4.5 (commencing with Section 11371)" in the last sentence.

Note —Section 17003.5, as added by Stats 1981 ch 996, provides that any reference to the Commission of Housing and Community Development shall be deemed to be to the Department of Housing and Community Development and the department may exercise all the powers and shall perform all the duties of the commission.

Cross References:

Fees as payable to Division of Codes and Standards where division processes applications for building permits: § 19124.

Department of Housing and Community Development: §§ 50400 et seq.

§ 19132.5. Fees where work started before permit obtained; Effect of payment

Where work for which a permit is required by this chapter is started or proceeded with prior to the obtaining of such permit, the fees prescribed in Section 19132.3 shall be doubled. The payment of such double fee does not relieve any person from fully complying with the requirements of this chapter in the execution of the work.

Added Stats 1945 ch 1147 § 3.

§ 19132.7. Determination of cost of work; Account of fees received; Disposition

The enforcement agency shall determine the cost of the work to be done for which the applicant desires a permit, and shall be guided by approved estimating practices. The enforcement agency shall keep a permanent account of all fees received under this chapter, the names of the persons upon whose account the same were paid, the date and the amount thereof, and the location of the building or premises to which they relate. All fees received shall be paid into the treasury of the city or county.

Added Stats 1945 ch 1147 § 4.

Cross References:

Enforcement agencies: §§ 19120 et seq.

§ 19132.9. When fee not required

The United States, the State of California, school or other districts, counties and cities shall not be required to pay a fee for filing an application for a building permit pursuant to this chapter.

Added Stats 1945 ch 1147 § 5; Amended Stats 1973 ch 692 § 2.

Amendments:

1973 Amendment: Added "or other".

§ 19133. Issuance of permit

The enforcement agency shall examine the application, plans, and specifications filed with it by an applicant, and if it appears that the work to be done will not result in a violation of this chapter, shall approve them and issue a permit to the applicant.

Added Stats 1941 ch 301 § 2.

Cross References:

Enforcement agencies: §§ 19120 et seq

§ 19134. Approval of changes in application, etc.

The enforcement agency may approve changes in any application, plans, or specifications previously approved by it.

Added Stats 1941 ch 301 § 2.

Cross References:

Enforcement agencies: §§ 19120 et seq.

§ 19135. Revocation of permits; Grounds

The enforcement agency may revoke any permit if the permittee refuses, fails, or neglects to comply with any provision of this chapter, or if it finds that any false statement or misrepresentation was made in the application, plans, or specifications filed by the permittee.

Added Stats 1941 ch 301 § 2.

Cross References:

Enforcement agencies: §§ 19120 et seq.

Collateral References:

Am Jur 2d Licenses §§ 58-62.

Law Review Articles:

Revocation proceedings before administrative commission. 11 CLR 273.

§ 19136. Performance of work

The work authorized by a permit shall be performed only in accordance with the application, plans, and specifications filed by the permittee.

Added Stats 1941 ch 301 § 2.

§ 19137. Issuance of permit not deemed approval of violation

The issuance of a permit does not constitute approval of any violation of any provision of this chapter.

Added Stats 1941 ch 301 § 2.

§ 19138. Application with specific reference to application, plans and specifications filed under State Housing Law

In any case where a building subject to this chapter is also subject to any permit provisions of the rules and regulations promulgated pursuant to the provision of the State Housing Law, it shall not be necessary to make duplicate filings of plans and specifications hereunder, to include in the application a detailed statement of the work to be done, nor shall it be necessary to pay a fee for filing an application for a building permit under this chapter if a fee is prescribed by local ordinance for a permit under the State Housing Law. In such cases, the application hereunder may contain a general statement of the work to be done, with a specific reference to the application, plans, and specifications filed under the State Housing Law.

Added Stats 1941 ch 301 § 2; Amended Stats 1945 ch 1147 § 6; Stats 1961 ch 1844 § 10.

Amendments:

1945 Amendment: (1) Deleted "nor shall it be necessary" before "to include in the application a detailed statement of the work to be done"; and (2) added ", nor shall it be necessary to pay a fee for filing an application for a building permit under this chapter if a fee is prescribed by local ordinance for a permit under the State Housing Act" at the end of the first sentence.

1961 Amendment: (1) Substituted "any" for "the" after "also subject to"; (2) added "of the rules and regulations promulgated pursuant to the provision"; and (3) substituted "Law" for "Act" wherever it appears.

Cross References:

State Housing Law: §§ 17910 et seq.

State Housing Law regulations: 25 Cal Adm Code §§ 1 et seq.

ARTICLE 3

Design and Construction

§ 19150. Resistance to horizontal stresses

§ 19151. [Repealed]

§ 19150. Resistance to horizontal stresses

Every building or structure and every portion thereof shall be designed and constructed to resist stresses produced by lateral forces as provided in the State Building Standards Code. In areas where the Division of Codes and Standards of the Department of Housing and Community Development is the enforcement agency, plumbing and electrical equipment and installations shall be subject to building standards published in the State Building Standards Code and the other rules and regulations adopted pursuant to Sections 17921 and 17922 of this code.

Enacted 1939; Amended Stats 1941 ch 1065 § 1; Stats 1953 ch 1766 § 1; Stats 1965 ch 1039 § 1; Stats 1969 ch 1394 § 3; Stats 1974 ch 859 § 2; Stats 1979 ch 1152 § 170.

Prior Law: Stats 1933 ch 601 § 1 p 1531, as amended by Stats 1935 ch 343 § 1 p 1204.

Amendments:

1941 Amendment: Prior to 1941 the section read: "Every building subject to this chapter shall be designed and constructed to resist and withstand horizontal forces from any direction of not less than either of the following, whichever is the greater:

"(a) Two per cent of the total vertical design load.

"(b) Twenty pounds per square foot of wind pressure on the vertical projection of the exposed surface of every portion of the building more than sixty feet in height, and fifteen pounds per square foot of wind pressure on the vertical projection of the exposed surface of every portion of the building sixty feet or less in height."

1941 Amendment substituted "Every building of any character, except a building to which this chapter does not apply, constructed in any part of this State" for "Every building subject to this chapter" at the beginning of the section.

1953 Amendment: Amended subd (a) to read: "(a) Two percent of the total vertical design load for buildings over 40 feet in height from the top of their foundations,

and three percent (3%) of the total vertical design load for buildings less than 40 feet in height from the top of their foundations."

1965 Amendment: Amended the section to read as at present except for the following Amendments.

1969 Amendment: Substituted "Division of Building and Housing Standards of the Department of Housing and Community Development" for "State Division of Housing".

1974 Amendment: (1) Substituted "Part 2 (commencing with Section B100)" for "Article 23 (commencing with Section 723.01, Part VI)" in the first sentence; (2) deleted the former second and third sentences which read: "Stresses shall be calculated as the effect of a force applied horizontally at each floor or roof level above the foundation. The force shall be assumed to come from any horizontal direction."; and (3) substituted "Division of Codes and" for "Division of Building and Housing" in the last sentence.

1979 Amendment: Substituted (1) "the State Building Standards Code" for "Part 2 (commencing with Section B100), Title 24, California Administrative Code" at the end of the first sentence; and (2) "building standards published in the State Building Standards Code and the other" for "the" in the second sentence.

Cross References:

State Building Standards Code: §§ 18935 et seq.

Department of Housing and Community Development: §§ 50400 et seq.

State Building Standards regulations: 24 Cal Adm Code §§ 2-100 et seq.

Collateral References:

Cal Jur 3d Building Regulations § 3, Labor § 16.

§ 19151. [Enacted 1939, amended by Stats 1963 ch 1786 § 67, operative October 1, 1963, and repealed by Stats 1965 ch 1039 § 2.]

Note—The repealed section related to the computation of stresses resulting from combined vertical and horizontal forces.

ARTICLE 4

Earthquake Hazardous Building Reconstruction

[Added by Stats 1979 ch 510 § 2.]

Former Article 4, consisting of § 19170, was renumbered Article 5 by Stats 1979 ch 510 § 1.

- § 19160. Legislative findings
- § 19161. Assessment of earthquake hazard
- § 19162. Building reconstruction standards
- § 19163. Local ordinance
- § 19163.5. Structures needed for emergency purposes
- § 19164. Allowable working stresses
- § 19165. Filing building reconstruction standards
- § 19166. Building reconstructed in compliance with standards
- § 19167. No liability for damages due to earthquake
- § 19168. Structures excluded
- § 19169. Review of reconstruction standards

Cross References:

Violation as misdemeanor: § 19170.

Collateral References:

Cal Jur 3d Building Regulations § 3.

§ 19160. Legislative findings

The Legislature finds and declares that:

(a) Because of the generally acknowledged fact that California will experience moderate to severe earthquakes in the foreseeable future, increased efforts to reduce earthquake hazards should be encouraged and supported.

(b) Tens of thousands of buildings subject to severe earthquake hazards continue to be a serious danger to the life and safety of hundreds of thousands of Californians who live and work in them in the event of an earthquake.

(c) Improvement of safety to life is the primary goal of building reconstruction to reduce earthquake hazards.

(d) In order to make building reconstruction economically feasible for, and to provide improvement of the safety of life in, seismically hazardous buildings, building standards enacted by local government for building reconstruction may differ from building standards which govern new building construction.

Added Stats 1979 ch 510 § 2.

§ 19161. Assessment of earthquake hazard

Each city, city and county, or county, may assess the earthquake hazard in its jurisdiction and identify buildings subject to its jurisdiction as being hazardous to life in the event of an earthquake if such buildings were constructed prior to the adoption of local building codes requiring earthquake resistant design of buildings, are constructed of unreinforced masonry bearing wall construction, and exhibit any of the following characteristics:

- (1) Exterior parapets or ornamentation that may fall;
- (2) Exterior walls that are not anchored to the floors or roof;
- (3) Lacks an effective system to resist seismic forces.

Structural evaluations made pursuant to this section shall be made by an architect as defined in Section 5500 of the Business and Professions Code, or a civil or structural engineer registered pursuant to the provisions of Chapter 7 (commencing with Section 6700) of Division 3 of the Business and Professions Code, or a building inspector of the enforcing agency, as described in Section 17960, supervised by such an architect or civil or structural engineer.

Added Stats 1979 ch 510 § 2.

§ 19162. Building reconstruction standards

Notwithstanding the provisions of Section 19100 or 19150 or any other provision of law, the governing body of any city, city and county, or county may, by ordinance, establish building reconstruction standards applicable to the reconstruction of any buildings identified by the city, city and county, or county as being hazardous to life in the event of an earthquake, pursuant to Section 19161. Such building reconstruction standards may be applied uniformly throughout the city, city and county, or county, or may be applied in specific areas designated by the city, city and county, or county.

Added Stats 1979 ch 510 § 2.

§ 19163. Local ordinance

Any local ordinance adopted pursuant to Section 19162 shall require that:

(a) Any reconstruction of any building identified as being hazardous to life in the event of an earthquake shall provide for the reasonable adequacy of:

- (1) Unreinforced masonry walls to resist normal and inplane seismic forces,
- (2) The anchorage and stability of exterior parapets and ornamentation,
- (3) The anchorage of unreinforced masonry walls to the floors and roof,
- (4) Floor and roof diaphragms,
- (5) The development of a complete bracing system to resist earthquake forces.

(b) Reconstruction of any building or portions of any building shall be designed to resist and withstand the seismic forces from any direction as set forth in the building reconstruction standards using the allowable working stresses adopted pursuant to this article.

(c) The governing board of any city, city and county, or county may establish, by ordinance, standards and procedures to fulfill the intent of paragraph (2) of subdivision (a) without regard to the remainder of the requirements specified above.

Added Stats 1979 ch 510 § 2.

§ 19163.5. Structures needed for emergency purposes

Except as otherwise provided in Chapter 1 (commencing with Section 15000) of Division 12.5, an ordinance adopted by a city, city and county, or county pursuant to Section 19163, may establish higher standards for the reconstruction of those structures or buildings which are needed for emergency purposes after an earthquake in order to preserve the peace, health, and safety of the general public, including but not limited to, hospitals and other medical facilities having surgery or emergency treatment areas, fire and police stations, government disaster operations centers, and public utility and communication buildings deemed vital in emergencies.

Added Stats 1979 ch 510 § 2.

§ 19164. Allowable working stresses

Any city, city and county, or county may assign allowable working stresses to existing materials based on substantiating research data or engineering judgment. Such allowable working stresses shall be limited by a safety factor which is reasonably commensurate with the importance of the element in which the material is used. In the event the local jurisdiction does not have the ability to assign such allowable working stresses, it may employ as a consultant the office of the State Architect. Allowable working stresses prepared by the office of the State Architect for any city, city and county, or county shall be subject to approval by the Seismic Safety Commission.

Added Stats 1979 ch 510 § 2.

Cross References:

Seismic Safety Commission: Gov C §§ 8891 et seq.
State Architect: Gov C §§ 14950 et seq.

§ 19165. Filing building reconstruction standards

Any city, city and county, or county adopting an ordinance establishing seismically hazardous building reconstruction standards applicable to the reconstruction of buildings identified as being hazardous to life in the event of an earthquake, shall file for informational purposes with the Department of Housing and Community Development a copy of such standards and all subsequent amendments.

Added Stats 1979 ch 510 § 2.

Cross References:

Department of Housing and Community Development: §§ 50400 et seq.

§ 19166. Buildings reconstructed in compliance with standards

Any building identified as being a seismic hazard to life and reconstructed in compliance with building reconstruction standards adopted pursuant to this article and properly maintained, shall not, within a period of 15 years, be identified as a seismic hazard to life pursuant to any local building standards adopted after the date of the building reconstruction unless such building no longer meets the seismically hazardous building reconstruction standards under which it was reconstructed.

Added Stats 1979 ch 510 § 2.

§ 19167. No liability for damages due to earthquake

No city, city and county, or county, nor any employee of any such entity, shall be liable for damages for injury to persons or property, resulting from an earthquake or otherwise, on the basis of any assessment or evaluation performed, any ordinance adopted, or any other action taken pursuant to this article, irrespective of whether such action complies with the terms of this article, or on the basis of failure to take any action authorized by this article. The immunity from liability provided herein is in addition to all other immunities of the city, city and county, or county provided by law.

Added Stats 1979 ch 510 § 2; Amended Stats 1979 ch 1131 § 2.

§ 19168. Structures excluded

Nothing in this article shall apply to those buildings and structures governed by the provisions of Chapter 1 (commencing with Section 15000) of Division 12.5 of this code or Article 3 (commencing with Section 39140) of Chapter 2 of Part 23 of the Education Code or Article 7 (commencing with Section 81130) of Chapter 1 of Part 49 of the Education Code or any state-owned buildings or structures located in any city, city and county, or county.

Added Stats 1979 ch 510 § 2.

§ 19169. Review of reconstruction standards

The Seismic Safety Commission shall review and assess the effectiveness of building reconstruction standards adopted pursuant to this article and shall recommend any necessary changes to the Legislature on or before June 30, 1985.

Added Stats 1979 ch 510 § 2.

Cross References:

Seismic Safety Commission: Gov C §§ 8891 et seq.

ARTICLE 5

Violations

[Enacted 1939 as Article 4 and renumbered Article 5 by Stats 1979 ch 510 § 1.]

§ 19170. Violation of chapter as misdemeanor

Any person who violates, or causes or permits another person to violate, any provision of this chapter is guilty of a misdemeanor.

Enacted 1939; Amended Stats 1941 ch 301 § 3.

Prior Law: Stats 1933 ch 601 § 5 p 1532.

Amendments:

1941 Amendment: Substituted "violates, or causes or permits another person to violate, any provision" for "constructs a building in violation".

Cross References:

Definition of misdemeanor and punishment therefor: Pen C §§ 17, 19, 19a.

Form of complaint: Pen C § 740.

Collateral References:

Cal Jur 3d Building Regulations § 3, Criminal Law § 267, Hotels, Motels, and Restaurants §§ 14, 16.

Am Jur 2d Criminal Law § 30.

Law Review Articles:

Review of Selected 1979 California Legislation. 11 Pacific LJ 539.

2. Title 24, California Administrative Code

Title 24 is the state code of building standards promulgated in accordance with the Building Standards Law which is found in Sections 18900-18915 of the Health and Safety Code. Included are regulations related to building construction as well as electrical, mechanical and fire provisions. Title 24 is a codification, in one place, of all state agency building standards, edited to eliminate conflict, duplication and overlap, and renumbered to fit a single code format.

Title 24 contains minimum standards for certain non-state buildings in which the State has some authority. These regulations supersede the UBC in California. Amendments to Title 24 include regular updates of the UBC, any variations from the UBC requires a special amendment.

3. Essential Services Buildings Seismic Safety Act

The provisions of the Essential Services Buildings Seismic Safety Act of 1986 (Sections 16000 through 16023 of the Health and Safety Code) became effective January 1, 1986. Any construction or alteration project for an essential services building for which a contract for the construction or alteration work has not been entered into prior to July 1, 1986 will be subject to the requirements of the Act.

An essential services building is defined in Section 16007 as any building designed and constructed for public agencies used or designed to be used, or any building a portion of which is used, as a fire station, police station, emergency operations center, California Highway Patrol Office, sheriff's office or emergency communication dispatch center.

The Essential Services Building Seismic Safety Act of 1986 is reprinted on the following pages.

ARTICLE 1

General Provisions

- § 16000. Citation of chapter
- § 16001. Intent of Legislature

§ 16000. Citation of chapter

This chapter shall be known and may be cited as the Essential Services Buildings Seismic Safety Act of 1986.

Added Stats 1985 ch 1521 § 1.

§ 16001. Intent of Legislature

It is the intent of the Legislature that essential services buildings, which shall be capable of providing essential services to the public after a disaster, shall be designed and constructed to minimize fire hazards and to resist, insofar as practical, the forces generated by earthquakes, gravity, and winds. It is also the intent of the Legislature that the structural systems and details set forth in working drawings and specifications be carefully reviewed by the responsible enforcement agencies using qualified personnel, and that the construction process be carefully and completely inspected. In order to accomplish these purposes, the Legislature intends to provide for the establishment of building standards for earthquake, gravity, fire, and wind resistance based upon current knowledge, and intends that procedures for the design and construction of essential services buildings be subjected to qualified design review and construction inspection.

It is further the intent of the Legislature that the nonstructural components vital to the operation of essential services buildings shall also be able to resist, insofar as practical, the forces generated by earthquakes, gravity, fire, and winds. The Legislature recognizes that certain nonstructural components housed in essential services buildings, including, but not limited to, communications systems, main transformers and switching equipment, and emergency backup systems, are essential to facility operations and that these nonstructural components should be given adequate consideration during the design and construction process to assure, insofar as practical, continued operation of the building after a disaster.

Added Stats 1985 ch 1521 § 1.

ARTICLE 2

Definitions

- § 16002. Definitions to govern construction
- § 16003. "Architect"
- § 16004. "Civil engineer"
- § 16005. "Construction or alteration"
- § 16006. "Enforcement agency"
- § 16007. "Essential services building"
- § 16008. "Structural engineer"

§ 16002. Definitions to govern construction

Unless the context otherwise requires, the definitions in this article govern the construction of this chapter.

Added Stats 1985 ch 1521 § 1.

§ 16003. "Architect"

"Architect" means a person who is certified under Chapter 3 (commencing with Section 5500) of Division 3 of the Business and Professions Code.

Added Stats 1985 ch 1521 § 1.

§ 16004. "Civil engineer"

"Civil engineer" means a person who is registered as a civil engineer under Chapter 7 (commencing with Section 6700) of Division 3 of the Business and Professions Code.

Added Stats 1985 ch 1521 § 1.

§ 16005. "Construction or alteration"

"Construction or alteration" includes any construction of, addition to, reconstruction of, or alteration to any essential services building.

Added Stats 1985 ch 1521 § 1.

§ 16006. "Enforcement agency"

"Enforcement agency" means the agency of a city, city and county, or county responsible for building safety within its jurisdiction. The office of the State Architect is the enforcement agency for state-owned facilities or facilities leased by the state.

Added Stats 1985 ch 1521 § 1.

§ 16007. "Essential services building"

"Essential services building" means any building, including buildings designed and constructed, for public agencies used, or designed to be used, or any building a portion of which is used or designed to be used, as a fire station, police station, emergency operations center, California Highway Patrol office, sheriff's office, or emergency communication dispatch center.

Added Stats 1985 ch 1521 § 1.

§ 16008. "Structural engineer"

"Structural engineer" means a person who is authorized to use the title structural engineer under Chapter 7 (commencing with Section 6700) of Division 3 of the Business and Professions Code.

Added Stats 1985 ch 1521 § 1.

ARTICLE 3

General Requirements and Administration

- § 16009. Review of design and construction
- § 16010. Exempt buildings
- § 16011. Submission of designs to agency; Approval stamp
- § 16012. Materials to accompany application for approval
- § 16013. Duties of agency
- § 16014. Assessment of geological conditions
- § 16015. Persons qualified to prepare documents or supervise construction
- § 16016. Approval required prior to construction

§ 16009. Review of design and construction

The appropriate enforcement agency which meets the requirements of Sections 16017 and 16018 shall review the design and inspect the construction of essential services buildings or the reconstruction, alteration, or addition to any essential services building to the extent it deems necessary to ensure that drawings and specifications comply with the applicable sections of the Model Code, as defined in Section 18916 and specified in Title 24 of the California Administrative Code, and to ensure for the protection of life and property that the work of construction has been performed in accordance with the approved drawings and specifications and this chapter.

Added Stats 1985 ch 1521 § 1.

§ 16010. Exempt buildings

Essential services buildings of one-story Type V and Type II N construction that are 2,000 square feet or less in floor area are exempt from the provisions of this chapter.

Added Stats 1985 ch 1521 § 1.

§ 16011. Submission of designs to agency; Approval stamp

Unless a contract for the construction or alteration of an essential services building is entered into prior to July 1, 1986, before adopting any drawings or specifications for the essential services building, the governing board, authority, owner, corporation, or other agency proposing to construct any essential services building shall submit the design calculations, drawings, and specifications of the essential services buildings to the appropriate enforcement agency. The enforcement agency shall stamp the drawings and specifications if the construction or alteration is approved by the enforcement agency. Included with the stamp shall be the signature of the qualified person referred to in Section 16018 or Section 16019.

Added Stats 1985 ch 1521 § 1.

§ 16012. Materials to accompany application for approval

In each case, the application for approval of the drawings and specifications for essential services buildings shall be accompanied by comprehensive and complete drawings, design calculations, and specifications, and required fees, all of which shall comply with the requirements prescribed by the enforcement agency. This review shall not preclude incremental submission and approval of drawings and specifications.

Added Stats 1985 ch 1521 § 1.

§ 16013. Duties of agency

The enforcement agency shall approve or reject all drawings and specifications for the construction or the alteration of all essential services buildings, and in doing so, shall review the design calculations, drawings, and specifications to ensure compliance with the requirements of this chapter. A record shall be kept by the enforcement agency indicating that design calculations, drawings, and specifications have been reviewed and conform with the applicable sections of the Model Code, as defined in Section 18916 and specified in Title 24 of the California Administrative Code.

Added Stats 1985 ch 1521 § 1.

§ 16014. Assessment of geological conditions

(a) Except as otherwise provided in subdivision (b), drawings and specifications submitted pursuant to this chapter for construction, reconstruction, remodeling, additions, or alterations which affect structural elements of structures in existence on January 1, 1986, shall be based upon an assessment of the geological conditions of the site and the potential for earthquake damage, relying upon geologic and engineering investigations and studies by personnel who are competent to report on geologic conditions and their potential for causing earthquake damage. One-story Type V and Type II N construction of 4,000 square feet or less shall be exempt from this section, unless the project is within a special studies zone established pursuant to Section 2622 of the Public Resources Code.

(b) The requirements of subdivision (a) may be waived by the enforcement agency if it determines that these requirements for the proposed essential services building project are unnecessary and would not be beneficial to the safety of the public.

Added Stats 1985 ch 1521 § 1.

§ 16015. Persons qualified to prepare documents or supervise construction

All drawings and specifications shall be prepared under the responsible charge of an architect, civil engineer, or structural engineer, who shall sign all drawings and specifications for approval of the enforcement agency. Observation of the work of construction shall be under the general responsible charge of the same architect, civil engineer, or structural engineer when feasible, as determined by the enforcement agency, except that if drawings and specifications do not involve architectural or structural conditions, the drawings and specifications may be prepared and the work of construction may be administered by a registered professional engineer qualified in the branch of engineering that is appropriate to the drawings, specifications, estimates, and work of construction.

Added Stats 1985 ch 1521 § 1.

§ 16016. Approval required prior to construction

Except as provided in Section 16011, on and after July 1, 1986, construction of an essential services building shall not begin unless the drawings and specifications comply with this chapter and the requirements prescribed by the enforcement agency and approval of those drawings and specifications has been obtained from the enforcement agency.

Added Stats 1985 ch 1521 § 1.

ARTICLE 4

Qualifications and Reporting

- § 16017. Inspections during construction; Qualifications of inspectors
- § 16018. Agencies qualified to review designs
- § 16019. Duty to obtain necessary qualified personnel
- § 16020. Periodic reviews of construction by architect or engineer
- § 16021. Periodic reports by inspector and contractor
- § 16022. Duties of State Architect

§ 16017. Inspections during construction; Qualifications of inspectors

During construction or alteration of an essential services building, the building owner shall provide for, and the local enforcement agency shall require, competent, adequate, and detailed inspection by a qualified inspector. To be qualified, inspectors shall have an adequate level of expertise and experience in the subject matter for which they have responsibilities for inspection as prescribed by this section. Qualification shall include current certification by the International Conference of Building Officials; or qualifications as an inspector meeting the requirements of subdivision (a) of Section 305 and subdivision (b) of Section 306 of, the 1982 Edition of the Uniform Building Code. Additionally, the architect, civil engineer, or structural engineer responsible for designing the essential services facility is qualified to inspect construction of the facility.

Added Stats 1985 ch 1521 § 1.

§ 16018. Agencies qualified to review designs

An enforcement agency is qualified to undertake the review of plans, drawings, and specifications for essential services buildings if the enforcement agency has an architect, civil engineer, or structural engineer on its staff or under contract who is responsible for all design review conducted by the enforcement agency and the record prepared under Section 16013.

Added Stats 1985 ch 1521 § 1.

§ 16019. Duty to obtain necessary qualified personnel

A jurisdiction whose enforcement agency does not meet the qualifications specified in Sections 16017 and 16018 shall obtain necessary qualified personnel to meet the requirements of this chapter by contracting with other public agencies, private sector firms, or individuals qualified to perform the necessary services.

Added Stats 1985 ch 1521 § 1.

§ 16020. Periodic reviews of construction by architect or engineer

Periodically, as the work of construction or alteration progresses and whenever the enforcement agency requires, except as exempt under Section 16010, the architect, civil engineer, or structural engineer in general responsible charge of the work of construction, and the registered engineer shall make a report, duly verified by him or her through periodic review of construction, showing that the work during the period covered by the report has been performed and that the materials used and installed are in accordance with the approved drawings and specifications, setting forth any detailed statements of fact required by the enforcement agency.

“Periodic review of construction,” as used in this section and as applied to the architect, civil engineer, or structural engineer and the registered engineer, means the knowledge which is obtained from periodic visits to the project site of reasonable frequency for the purpose of general observation of the work, and also which is obtained from the reporting of others as to the progress of the work, testing of materials, inspection and superintendence of the work that is performed between those periodic visits of the architect, civil engineer, or structural engineer, or the registered engineer. The exercise of reasonable diligence to obtain the facts is required. The term “periodic review of construction” does not include responsibility for superintendence of construction processes, site conditions, operations, equipment, personnel, or the maintenance of a safe place to work or any safety in, on, or about the site of work.

Added Stats 1985 ch 1521 § 1.

§ 16021. Periodic reports by inspector and contractor

Periodically, as the work of construction or alteration progresses and whenever the enforcement agency requires, except as exempt under Section 16010, the inspector on the work and the contractor shall each make a report, duly verified by him or her, showing in his or her own personal knowledge, that the work during the period covered by the report has been performed and that the materials used and installed are in accordance with the approved drawings and specifications, setting forth any detailed statements of fact required by the enforcement agency.

“Personal knowledge” as applied to the inspector, means the actual personal knowledge which is obtained from his or her personal continuous inspection of the work of construction in all stages of its progress at the site where he or she is responsible for inspection and when work is carried out away from the site, that personal knowledge which is obtained from the reporting of others of the testing or inspection of materials and workmanship for compliance with plans, specifications, or applicable standards. The exercise of reasonable diligence to obtain the facts is required.

“Personal knowledge,” as applied to the contractor, means the personal knowledge which is obtained from the construction of the building. The exercise of reasonable diligence to obtain the facts is required.

Added Stats 1985 ch 1521 § 1.

§ 16022. Duties of State Architect

The State Architect shall do all of the following:

- (a) Observe the implementation and administration of this chapter.
- (b) Establish and adopt, in consultation with the League of Cities, County Supervisors Association, and California Building Officials, those regulations deemed necessary for carrying out this chapter.
- (c) Provide advice and assistance to local jurisdictions regarding essential services buildings.
- (d) Hear appeals relative to the administration of this chapter.

The State Architect may establish an advisory committee to assist the State Architect with his or her responsibilities under this chapter. The State Architect shall periodically inform the Seismic Safety Commission and the State Fire Marshal with respect to the implementation and the administration of this chapter.

Added Stats 1985 ch 1521 § 1.

4. Uniform Building Code

The Uniform Building Code (UBC) provides minimum standards for building construction and seismic safety design. The Code is revised every three years by the International Conference of Building Officials, most recently in 1988. The UBC requirements relate to new construction. If the code is changed, the requirements are not retroactively applied to existing structures, as with, for example, the Uniform Fire Code. The Code is intended to establish a minimum life safety standard, not to make a building "earthquake proof".

The Uniform Building Code becomes effective within a jurisdiction when adopted as an ordinance by cities or counties or as a regulation by the State. Local governments usually make modifications necessary to fit jurisdictional conditions.

The significant earthquake-related revisions in the 1988 edition include (a) requirements for greater lateral support in buildings, (b) the addition of a fourth soils classification (deep unconsolidated mud) and (c) special provisions for irregular or complex building configurations.

5. State Historic Building Code

The State has special provisions for modification and addition to historic buildings that are described in the State Historic Building Code, which was added to the California Health and Safety code in 1975. These regulations are generally more architecturally stringent than for "non-historic" buildings and typically require preservation of building facade. Amendments in 1985 took out permissive language and replaced with *will* and *shall*. The technical portions of the State Historic Building Code are found in Title 24, CAC (Part 8). These regulations supersede the UBC in California.

H. Unreinforced Masonry Provisions

1. State Legislation

In 1979, SB 555 increased city and county immunity for the adoption of local earthquake unsafe building abatement ordinances. This increased immunity applies even if such ordinance does not require that unsafe buildings be brought up to current building code standards. This statute is found in the California Health and Safety code section 19167 to 19169.2 (part of Chapter 2 or the Riley Act).

The following is extracted from the California Health and Safety Code:

§ 19167. Immunity from liability for damages or injuries caused by earthquake

No city, city and county, or county, nor any employee of any such entity, shall be liable for damages for injury to persons or property, resulting from an earthquake or otherwise, on the basis of any assessment or evaluation performed, any ordinance adopted, or any other action taken pursuant to this article, irrespective of whether such action complies with the terms of this article; or on the basis of failure to take any action authorized by this article. The immunity from liability provided herein is in addition to all other immunities of the city, city and county, or county provided by law.

(Added by Stats.1979, c. 510, p. 1684, § 2. Amended by Stats.1979, c. 1131, p. 4115, § 2.)

In conjunction with SB 555 the Seismic Safety Commission sponsored SB 445, sometimes referred to as the Earthquake Hazardous Building Reconstruction Act (Cal. Health and Safety code, sec. 19160-19169, Article 4 of Chapter 2). This legislation relaxed building code standards for buildings rehabilitated for seismic reasons; such buildings are not required to meet existing codes for new construction but rather to meet life-safety standards. These sections generally contain permissive language.

The most recent significant earthquake legislation, passed in 1986, relates to unreinforced masonry buildings (SB 547) and is found in California Government Code, sections 8875 through 8875.5. The law requires all cities and counties located in seismic zone 4 (according to Title 24) in the State to conduct a survey to identify all unreinforced masonry buildings and to notify the owner that he/she owns such a building. The local government must also develop a program to mitigate the hazard. Guidelines for the survey process and program development have been prepared by the Seismic Safety Commission. This legislation is significant because it is attempting to deal retroactively with building code deficiencies, whereas, the Uniform Building Code and most state building regulations apply only to new construction.

CHAPTER 12.2

Building Earthquake Safety

[Added by Stats 1986 ch 250 § 2.]

§ 8875. Definitions

§ 8875.1. Program to identify and mitigate hazardous buildings

§ 8875.2. Duties of local building departments

§ 8875.3. Immunity from liability

§ 8875.4. Annual report

§ 8875.5. Coordination of earthquake-related responsibilities

Note—Stats 1986 ch 250 provides:

SECTION 1. (a) The Legislature recognizes that California is situated in a seismically active region with earthquake faults which subject large areas of the state to high seismic risk. The Legislature further recognizes that the existence and occupancy of potentially hazardous buildings constitute a severe threat to the public safety in the event of an earthquake of moderate to high magnitude.

(b) The Legislature additionally finds that the Seismic Safety Commission estimates that there may be more than 60,000 unreinforced masonry buildings constructed before 1933 which remain in use in this state. As part of an effort to protect the public health and safety, the Legislature declares the need to establish programs in the seismically active areas of the state to identify potentially hazardous buildings within local governmental jurisdictions.

§ 8875. Definitions

Unless the context otherwise requires, the following definitions shall govern the construction of this chapter:

(a) "Potentially hazardous building" means any building constructed prior to the adoption of local building codes requiring earthquake resistant design of buildings and constructed of unreinforced masonry wall construction. "Potentially hazardous building" includes all buildings of this type, including, but not limited to, public and private schools, theaters, places of public assembly, apartment buildings, hotels, motels, fire stations, police stations, and buildings housing emergency services, equipment, or supplies, such as government buildings, disaster relief centers, communications facilities, hospitals, blood banks, pharmaceutical supply warehouses, plants, and retail outlets. "Potentially hazardous building" does not include warehouses or similar structures not used for human habitation, except for warehouses or structures housing emergency services equipment or supplies. "Potentially hazardous building" does not include any building having five living units or less. "Potentially hazardous building" does not include, for purposes of subdivision (a) of Section 8877, any building which qualifies as "historical property" as determined by an appropriate governmental agency under Section 37602 of the Health and Safety Code.

(b) "Local building department" means a department or agency of a city or county charged with the responsibility for the enforcement of local building codes.

Added Stats 1986 ch 250 § 2.

§ 8875.1. Program to identify and mitigate hazardous buildings

A program is hereby established within all cities, both general law and chartered, and all counties and portions thereof located within seismic zone 4, as defined and illustrated in Chapter 2-23 of Part 2 of Title 24 of the California Administrative Code, to identify all potentially hazardous buildings and to establish a program for mitigation of identified potentially hazardous buildings.

By September 1, 1987, the Seismic Safety Commission, in cooperation with the League of California Cities, the County Supervisors Association of California, and California building officials, shall prepare an advisory report for local jurisdictions containing criteria and procedures for purposes of Section 8875.2.

Added Stats 1986 ch 250 § 2 as § 8876; Renumbered § 8875.1 and amended Stats 1987 ch 56 § 62.

Amendments:

1987 Amendment: Routine code maintenance.

§ 8875.2. Duties of local building departments

Local building departments shall do all of the following:

(a) Identify all potentially hazardous buildings within their respective jurisdictions on or before January 1, 1990. This identification shall include current building use and daily occupancy load. In regard to identifying and inventorying the buildings, the local building departments may establish a schedule of fees to recover the costs of identifying potentially hazardous buildings and carrying out this chapter.

(b) Establish a mitigation program for potentially hazardous buildings to include notification to the legal owner that the building is considered to be one of a general type of structure that historically has exhibited little resistance to earthquake motion. The mitigation program may include the adoption by ordinance of a hazardous buildings program, measures to strengthen buildings, measures to change the use to acceptable occupancy levels or to demolish the building, tax incentives available for seismic rehabilitation, low-cost seismic rehabilitation loans available under Division 32 (commencing with Section 55000) of the Health and Safety Code, application of structural standards necessary to provide for life safety above current code requirements, and other incentives to repair the buildings which are available from federal, state, and local programs. Compliance with an adopted hazardous buildings ordinance or mitigation program shall be the responsibility of building owners.

Nothing in this chapter makes any state building subject to a local building mitigation program or makes the state or any local government responsible for paying the cost of strengthening a privately owned structure, reducing the occupancy, demolishing a structure, preparing engineering or architectural analysis, investigation, or design, or other costs associated with compliance of locally adopted mitigation programs.

(c) By January 1, 1990, all information regarding potentially hazardous buildings and all hazardous building mitigation programs shall be reported to the appropriate legislative body of a city or county and filed with the Seismic Safety Commission.

Added Stats 1986 ch 250 § 2 as § 8877; Renumbered Stats 1987 ch 56 § 63.

§ 8875.3. Immunity from liability

Local jurisdictions undertaking inventories and providing structural evaluations of potentially hazardous buildings pursuant to this chapter shall have the same immunity from liability for action or inaction taken pursuant to this chapter as is provided by Section 19167 of the Health and Safety Code for action or failure to take any action pursuant to Article 4 (commencing with Section 19160) of Chapter 2 of Part 3 of Division 13 of the Health and Safety Code.

Added Stats 1986 ch 250 § 2 as § 8878 and Renumbered Stats 1987 ch 56 § 64.

§ 8875.4. Annual report

The Seismic Safety Commission shall report annually, commencing on or before June 30, 1987, to the Legislature on the filing of mitigation programs from local jurisdictions. The annual report required by this section shall review and assess the effectiveness of building reconstruction standards adopted by cities and counties pursuant to this article and shall supersede the reporting requirement pursuant to Section 19169 of the Health and Safety Code.

Added Stats 1986 ch 250 § 2 as § 8879; Renumbered Stats 1987 ch 56 § 65.

§ 8875.5. Coordination of earthquake-related responsibilities

The Seismic Safety Commission shall coordinate the earthquake-related responsibilities of government agencies imposed by this chapter to ensure compliance with the purposes of this chapter.

Added Stats 1986 ch 250 § 2 as § 8879.5; Renumbered Stats 1987 ch 56 § 66.

2. City of Los Angeles Ordinance

In January 1981 the City of Los Angeles adopted a local ordinance that provides systematic procedures and standards for identification and classification of unreinforced masonry bearing wall buildings based on their present use (see below). These guidelines apply to all buildings constructed or under construction prior to October 6, 1933. The ordinance provides priorities for classes of structures, time periods and standards for how such buildings shall be structurally analyzed and anchored. Where the analysis determines deficiencies the building is required to be strengthened or demolished.

The California Seismic Safety Commission has published guidelines (Rehabilitating Hazardous Masonry Buildings: A Draft Model Ordinance) recommending all local governments adopt a similar ordinance.

Some immunity is provided in the Los Angeles ordinance which specifically states:

The provisions of this Division are minimum standards for structural seismic resistance established primarily to reduce the risk of life loss of injury and will not necessarily prevent loss of life or injury or prevent earthquake damage to an existing building which complies with these standards.

The City of Los Angeles ordinance is reprinted on the following pages.

CITY OF LOS ANGELES

EARTHQUAKE HAZARD REDUCTION IN EXISTING BUILDINGS

(Division 88 Added by Ord. No. 159,068, Eff. 7/29/84, Oper. 1/29/85.)

SEC. 91.8801. PURPOSE.

The purpose of this Division is to promote safety and welfare by reducing the risk of death or injury that may result from the effects of earthquakes on unreinforced masonry bearing wall buildings constructed before 1934. Such buildings have been widely recognized for their sustaining of life hazardous damage as a result of partial or complete collapse during past moderate to strong earthquakes.

The provisions of this Division are minimum standards for structural seismic resistance established primarily to reduce the risk of life loss or injury and will not necessarily prevent loss of life or injury or prevent earthquake damage to an existing building which complies with these standards. This Division shall not require existing electrical, plumbing, mechanical or fire systems to be altered unless they constitute a hazard to life or property.

This Division provides systematic procedures and standards for identification and classification of unreinforced masonry bearing wall buildings based on their present use. Priorities, time periods and standards are also established under which these buildings are required to be structurally analyzed and anchored. Where the analysis determines deficiencies, this Division requires the building to be strengthened or demolished.

Portions of the State Historical Building Code (SHBC) established under Part 8, Title 24 of the California Administrative Code are included in this Division.

SEC. 91.8802. SCOPE.

The provisions of this Division shall apply to all buildings constructed or under construction prior to October 6, 1933, or for which a building permit was issued prior to October 6, 1933, which on the effective date of this ordinance have unreinforced masonry bearing walls as defined herein.

EXCEPTION: This Division shall not apply to detached one or two family dwellings and detached apartment houses containing less than 5 dwelling units and used solely for residential purposes.

SEC. 91.8803. DEFINITIONS. (Amended by Ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

For the purposes of this Division, the applicable definitions in Sec-

tions 91.2302 and 91.2312 of this code and the following shall apply:

ESSENTIAL BUILDING: Any building housing a hospital or other medical facility having surgery or emergency treatment areas; fire or police stations; municipal government disaster operation and communication centers.

HIGH RISK BUILDING: Any building, not classified an essential building, having an occupant load as determined by Section 91.3301(d) of this Code of 100 occupants or more.

EXCEPTION: A high risk building shall not include the following:

1. Any building having exterior walls braced with masonry crosswalls or wood frame crosswalls spaced less than 40 feet apart in each story. Cross walls shall be full story height with a minimum length of $1\frac{1}{2}$ times the story height. (Amended by ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

2. Any building used for its intended purpose, as determined by the Department, for less than 20 hours per week.

HISTORICAL BUILDING: Any building designated as a historical building by an appropriate Federal, State or City jurisdiction.

LOW RISK BUILDING: Any building, not classified an essential building, having an occupant load as determined by Section 91.3301(d) of less than 20 occupants.

MEDIUM RISK BUILDING: Any building not classified as a high risk building or an essential building, having an occupant load as determined by Section 91.3301(d) of 20 occupants or more.

UNREINFORCED MASONRY BEARING WALL: A masonry wall having all of the following characteristics:

1. Provides the vertical support for a floor or roof.
2. The total superimposed load is over 100 pounds per linear foot.
3. The area of reinforcing steel is less than 50 percent of that required by Section 91.2417(j) of this code. (Amended by Ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

SEC. 91.8804. RATING CLASSIFICATION.

The rating classification as exhibited in Table No. 88-A are hereby established and each building within the scope of this Division shall be placed in one such rating classification by the Department. The total occupant load of the entire building as determined by Section 91.3301(d) shall be used to determine the rating classification.

EXCEPTIONS:

1. For the purpose of this Division, portions of buildings constructed to act independently when resisting seismic forces may be placed in separate rating classifications.

2. For the purpose of this Division, to establish the rating classification of a building containing one or more artist in residence spaces, as defined in Section 91.8501 of this Code, the occupant load of each artist in residence space shall be one for each space less than 2,000 square feet in area and two for each space 2,000 square feet or more in area.

SEC. 91.8805. GENERAL REQUIREMENTS.

The owner of each building within the scope of this Division shall cause a structural analysis to be made of the building by a civil or structural engineer or architect licensed by the State of California; and, if the building does not meet the minimum earthquake standards specified in this Division, the owner shall cause it to be structurally altered to conform to such standards; or cause the building to be demolished.

The owner of a building within the scope of this Division shall comply with the requirements set forth above by submitting to the Department for review within the stated time limits:

(a) Within 270 days after the service of the order, a structural analysis. Such analysis which is subject to approval by the Department, shall demonstrate that the building meets the minimum requirements of this Division; or

(b) Within 270 days after the service of the order, the structural analysis and plans for the proposed structural alterations of the building necessary to comply to the minimum requirements of this Division; or

(c) Within 120 days after the service of the order, plans for the installation of wall anchors in accordance with the requirements specified in Section 91.8808(c); or

(d) Within 270 days after the service of the order, plans for the demolition of the building.

After plans are submitted and approved by the Department, the owner shall obtain a building permit, commence and complete the required construction or demolition within the time limits set forth in Table No. 88-B. these time limits shall begin to run from the date the order is served in accordance with Section 91.8806(a) and (b).

Owners electing to comply with Subsection (c) of this Section are also required to comply with Subsections (b) or (d) of this Section provided, however, that the 270-day period provided for in Subsections (b) and (d) and the time limits for obtaining a building permit, commencing construction and completing construction for complete structural alterations or building demolition set forth in Table No. 88-B shall be extended in accordance with Table No. 88-C. Each such extended time limit, except the time limit for commencing construction shall begin to run from the date the order is served in accordance with Section 91.8806(b). The time limit for commencing construction shall commence to run from the date the building permit is issued.

SEC. 91.8806. ADMINISTRATION.

(a) **Service of Order.** The Department shall issue an order, as provided in Section 91.8806(b), to the owner of each building within the scope of this Division in accordance with the minimum time periods for service of such orders set forth in Table No. 88-C. The minimum time period for the service of such orders shall be measured from the effective date of this Division. The Department shall upon receipt of a written request from the owner, order a building to comply with this Division prior to the normal service date for such building set forth in this Section.

(b) **Contents of Order.** The order shall be in writing and shall be served

either personally or by certified or registered mail upon the owner as shown on the last equalized assessment, and upon the person, if any, in apparent charge and control of the building. The order shall specify that the building has been determined by the Department to be within the scope of this Division and, therefore, is required to meet the minimum seismic standards of this Division. The order shall specify the rating classification of the building and shall be accompanied by a copy of Section 91.8805 which sets forth the owner's alternatives and time limits for compliance.

(c) **Appeal From Order.** The owner or person in charge or control of the building may appeal the Department's initial determination that the building is within the scope of this Division to the Board of Building and Safety Commissioners. Such appeal shall be filed with the Board within 60 days from the service date of the order described in Section 91.8806(b). Any such appeal shall be decided by the Board no later than 60 days after the date the appeal is filed. Such appeal shall be made in writing upon appropriate forms provided therefor, by the Department and the grounds thereof shall be stated clearly and concisely. Each appeal shall be accompanied by a filing fee as set forth in Table 4-A of Section 98.0403 of the Los Angeles Municipal Code.

Appeals or requests for slight modifications from any other determinations, orders or actions by the Department pursuant to this Division, shall be made in accordance with the procedures established in Section 98.0403.

(d) **Recordation.** At the time that the Department serves the aforementioned order, the Department shall file with the Office of the County Recorder a certificate stating that the subject building is within the scope of Division 88 — Earthquake Hazard Reduction in Existing Buildings — of the Los Angeles Municipal Code. The certificate shall also state that the owner thereof has been ordered to structurally analyze the building and to structurally alter or demolish it where compliance with Division 68 is not exhibited.

If the building is either demolished, found not to be within the scope of this Division, or is structurally capable of resisting minimum seismic forces required by this Division as a result of structural alterations or an analysis, the Department shall file with the Office of the County Recorder a certificate terminating the status of the subject building as being classified within the scope of Division 88 — Earthquake Hazard Reduction in Existing Buildings of the Los Angeles Municipal Code.

(e) **Enforcement.** If the owner or other person in charge or control of the subject building fails to comply with any order issued by the Department pursuant to this Division within any of the time limits set forth in Section 91.8805, the Department shall order that the entire building be vacated and that the building remain vacated until such order has been complied with. If compliance with such order has not been accomplished within 90 days after the date the building has been ordered vacated or such additional time as may have been granted by the Board, the Superintendent may order its demolition in accordance with the provisions of Section 91.8903 of this Code.

SEC. 91.8807. HISTORICAL BUILDINGS.

(a) **General.** The standards and procedures established by this Division shall apply in all respects to an historical building except that as a means to preserve original architectural elements and facilitate restoration, an historical building may, in addition, comply with the special provisions set forth in this Section.

(b) **Unburned Clay Masonry or Adobe.** Existing or re-erected walls of adobe construction shall conform to the following:

1. Unreinforced adobe masonry walls shall not exceed a height or length to thickness ratio of 5, for exterior bearing walls and must be provided with a reinforced bond beam at the top, interconnecting all walls. Minimum beam depth shall be 6 inches and a minimum width of 8 inches less than the wall width. Minimum wall thickness shall be 18 inches for exterior bearing walls and 10 inches for adobe partitions. No adobe structure shall exceed one story in height unless the historic evidence indicates a two story height. In such cases the height to thickness ratio shall be the same as above for the first floor based on the total two story height and the second floor wall thickness shall not exceed the ratio of 5 by more than 20 percent. Bond beams shall be provided at the roof and second floor levels.

2. Foundation footings shall be reinforced concrete under newly reconstructed walls and shall be 50 percent wider than the wall above, soil conditions permitting, except that the foundation wall may be 4 inches less in width than the wall above if a rock, burned brick, or stabilized adobe facing is necessary to provide authenticity.

3. New or existing unstabilized brick and adobe brick masonry shall have an average compressive strength of 225 pounds per square inch when tested in accordance with ASTM designation C67. One sample out of five may have a compressive strength of not less than 188 pounds per square inch. Unstabilized brick may be used where existing bricks are unstabilized and where the building is not susceptible to flooding conditions or direct exposure. Adobe may be allowed a maximum value of 3 pounds per square inch for shear with no increase for lateral forces.

4. Mortar may be of the same soil composition and stabilization as the brick in lieu of cement mortar.

5. Nominal tension stresses due to seismic forces normal to the wall may be neglected if the wall meets thickness requirements and shear values allowed by this subsection.

(c) **Archaic Materials.** Allowable stresses for archaic materials not specified in this code shall be based on substantiating research data or engineering judgement subject to the Department's satisfaction.

(d) **Alternative Materials and SHBC Advisory Review.** Alternative materials, design or methods of construction will be considered as set forth in Section 91.8809(d). In addition, when a request for an alternative proposed design, material or method of construction is being considered, the Department may file written request for opinion to the State Historical Building Code Advisory Board for its consideration, advice or findings in accordance with the SHBC.

SEC. 91.8808. ANALYSIS AND DESIGN.

(a) **General.** Every structure within the scope of this Division shall be analyzed and constructed to resist minimum total lateral seismic forces assumed to act nonconcurrently in the direction of each of the main axes of the structure in accordance with the following equation:

$$V = IKCSW \quad (88-1)$$

The value of IKCS need not exceed the values set forth in Table No. 88-D based on the applicable rating classification of the building.

(b) **Lateral Forces on Elements of Structures.** Parts or portions of structures shall be analyzed and designed for lateral loads in accordance with Subsections 91.8808(a) and 91.2312(e) of this Code but not less than the value from the following equation:

$$F_p = IC_p SW_p \quad (88-2)$$

For the provisions of this Subsection, the product of IS need not exceed the values as set forth in Table No. 88-E.

EXCEPTION: Unreinforced masonry walls in buildings not having a rating classification of I may be analyzed in accordance with Section 91.8809.

The value of C_p need not exceed the values set forth in Table No. 88-F.

(c) **Anchorage and Interconnection.** Anchorage and interconnection of all parts, portions and elements of the structure shall be analyzed and designed for lateral forces in accordance with Table No. 88-F of this Code and the equation $F_p = IC_p SW_p$ as modified by Table No. 88-E. Minimum anchorage of masonry walls to each floor or roof shall resist a minimum force of 200 pounds per linear foot acting normal to the wall at the level of the floor or roof.

(d) **Level of Required Repair.** Alterations and repairs required to meet the provisions of this Division shall comply with all other applicable requirements of this Code unless specifically provided for in this Division.

(e) **Required Analysis.**

1. **General.** Except as modified herein, the analysis and design relating to the structural alteration of existing structures within the scope of this Division shall be in accordance with the analysis specified in Division 23 of this Code.

2. **Continuous Stress Path.** A complete, continuous stress path from every part or portion of the structure to the ground shall be provided for the required horizontal forces.

3. **Positive Connections.** All parts, portions or elements of the structure shall be interconnected by positive means.

(f) **Analysis Procedure.**

1. **General.** Stresses in materials and existing construction utilized to transfer seismic forces from the ground to parts or portions of the structure shall conform to those permitted by the Code and those materials and types of construction specified in Section 91.8809.

2. **Connections.** Materials and connectors used for interconnection of parts and portions of the structure shall conform to the Code. Nails may be used as part of an approved connector.

3. **Unreinforced Masonry Walls.** Except as modified herein, unreinforced masonry walls shall be analyzed as specified in Section 91.2416, 91.2418 and 91.2419 to withstand all vertical loads as specified in Division 23 of this Code in addition to the seismic forces required by this Division. The 50 percent increase in the seismic force factor for shear walls as specified in Table No. 24-H of this code may be omitted in the computation of seismic loads to existing shear walls. (Amended by Ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

No allowable tension stress will be permitted in unreinforced masonry walls. Walls not capable of resisting the required design forces specified in this Division shall be strengthened or shall be removed and replaced.

EXCEPTIONS:

1. Unreinforced masonry walls in buildings not classified as a Rating Classification I pursuant to Table No. 88-A may be analyzed in accordance with Section 91.8809.

2. Unreinforced masonry walls which carry no design loads other than its own weight may be considered as veneer if they are adequately anchored to new supporting elements.

(g) Combination of Vertical and Seismic Forces.

1. **New Materials.** All new materials introduced into the structure to meet the requirements of this Section which are subjected to combined vertical and horizontal forces shall comply with Section 91.2312(j)2 of this Code.

2. **Existing Materials.** When stress in existing lateral force resisting elements are due to a combination of dead loads plus live loads plus seismic loads, the allowable working stress specified in the Code may be increased 100 percent. However, no increase will be permitted in the stresses allowed in Section 91.8809 and the stresses in members due only to seismic and dead loads shall not exceed the values permitted by Section 91.2303(d) of this Code.

3. **Allowable Reduction of Bending Stress by Vertical Load.** In calculating tensile fiber stress due to seismic forces required by this Division, the maximum tensile fiber stress may be reduced by the full direct stress due to vertical dead loads.

SEC. 91.8809. MATERIALS OF CONSTRUCTION.

(a) **General.** All materials permitted by this Code including their appropriate allowable stresses and those existing configurations of materials specified herein may be utilized to meet the requirements of this Division.

(b) Existing Materials.

1. **Unreinforced Masonry Walls.** Unreinforced masonry walls analyzed in accordance with this Section may provide vertical support for roof and floor construction and resistance to lateral loads. The bonding of such walls shall be as specified in Section 91.2411(b)1 of this Code. (Amended by Ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

Tension stresses due to seismic forces normal to the wall may be neglected if the wall does not exceed the height or length to thickness

ratio and the in-plane shear stresses due to seismic loads as set forth in Table No. 88-G.

If the wall height-thickness ratio exceeds the specified limits, the wall may be supported by vertical bracing members designed in accordance with Division 23. The deflection of such bracing member at design loads shall not exceed one-tenth of the wall thickness.

EXCEPTION: The wall may be supported by flexible vertical bracing members designed in accordance with Section 91.8808(b) if the deflection at design loads is not less than one-quarter nor more than one-third of the wall thickness.

All vertical bracing members shall be attached to floor and roof construction for their design loads independently of required wall anchors. Horizontal spacing of vertical bracing members shall not exceed one-half the unsupported height of the wall nor ten feet.

The wall height may be measured vertically to bracing elements other than a floor or roof. Spacing of the bracing elements and wall anchors shall not exceed six feet. Bracing elements shall be detailed to minimize the horizontal displacement of the wall by components of vertical displacements of the floor or roof.

2. Existing Roof, Floors, Walls, Footings, and Wood Framing. Existing materials including wood shear walls utilized in the described configuration may be used as part of the lateral load resisting system, provided that the stresses in these materials do not exceed the values shown in Table No. 88-H.

(c) **Strengthening of Existing Materials.** New materials including wood shear walls may be utilized to strengthen portions of the existing seismic resisting system in the described configurations provided that the stresses do not exceed the values shown in Table No. 88-I.

(d) **Alternate Materials.** Alternate materials, designs and methods of construction may be approved by the Department in accordance with the provisions of Article 8, Chapter IX of the Los Angeles Municipal Code.

(e) **Minimum Acceptable Quality of Existing Unreinforced Masonry Walls.**

1. General Provisions. All unreinforced masonry walls utilized to carry vertical loads and seismic forces parallel and perpendicular to the wall plane shall be tested as specified in this Subsection. All masonry quality shall equal or exceed the minimum standards established herein or shall be removed and replaced by new materials. Alternate methods of testing may be approved by the Department. The quality of mortar in all masonry walls shall be determined by performing in-place shear tests or by testing eight inch diameter cores. Alternative methods of testing may be approved by the Department. Nothing shall prevent pointing with mortar of all the masonry wall joints before the tests are first made. Prior to any pointing, the mortar joints must be raked and cleaned to remove loose and deteriorated mortar. Mortar for pointing shall be type S and N except masonry cements shall not be used. All preparation and mortar pointing shall

be done under the continuous inspection of a Registered Deputy Building Inspector. At the conclusion of the inspection, the inspector shall submit a written report to the licensed engineer or architect responsible for the seismic analysis of the building setting forth the result of the work inspected. Such report shall be submitted to the Department for approval as part of the structural analysis. All testing shall be performed in accordance with the requirements specified in this Subsection by a testing agency approved by the Department. An accurate record of all such tests and their location in the building shall be recorded and these results shall be submitted to the Department for approval as part of the structural analysis.

2. Number and Location of Tests. The minimum number of tests shall be two per wall or line of wall elements resisting a common force, or 1 per 1500 square feet of wall surface, with a minimum of eight tests in any case. The exact test or core location shall be determined at the building site by the licensed engineer or architect responsible for the seismic analysis of the subject building.

3. In-Place Shear Tests. The bed joints of the outer wythe of the masonry shall be tested in shear by laterally displacing a single brick relative to the adjacent bricks in that wythe. The opposite head joint of the brick to be tested shall be removed and cleaned prior to testing. The minimum quality mortar is 80 percent of the shear tests shall not be less than the total of 30 psi plus the axial stress in the wall at the point of the test. The shear stress shall be based on the gross area of both bed joints and shall be that at which movement of the brick is first observed.

4. Core Tests. A minimum number of mortar test specimens equal to the number of required cores shall be prepared from the cores and tested as specified herein. The mortar joint of the outer wythe of the masonry core shall be tested in shear by placing the circular core section in a compression testing machine with the mortar bed joint rotated 15 degrees from the axis of the applied load. The mortar joint tested in shear shall have an average ultimate stress based of 20 psi based on the gross area. The average shall be obtained from the total number of cores made. If test specimens cannot be made from cores taken then the shear value shall be reported as zero.

(f) Testing of Shear Bolts. One-fourth of all new shear bolts and dowels embedded in unreinforced masonry walls shall be tested by a Registered Deputy Building Inspector using a torque calibrated wrench to the following minimum torques:

1/2" diameter bolts or dowels = 40 foot-lbs.

5/8" diameter bolts or dowels = 50 foot-lbs.

3/4" diameter bolts or dowels = 60 foot-lbs.

No bolts exceeding 3/4" shall be used. All nuts shall be installed over malleable iron or plate washers when bearing on wood and heavy cut washers when bearing on steel.

(g) **Determination of Allowable Stresses for Design Methods Based on Test Results.**

1. **Design Shear Values.** Design seismic in-plane shear stresses shall be substantiated by tests performed as specified in Section 91.8809(e) 3 and 4.

Design stresses shall be related to test results obtained in accordance with Table No. 88-J. Intermediate values between 3 and 10 psi may be interpolated.

2. **Design Compression and Tension Values.** Compression stresses for unreinforced masonry having a minimum design shear value of 3 psi shall not exceed 100 psi. Design tension values for unreinforced masonry shall not be permitted.

(h) Five percent of the existing rod anchors utilized as all or part of the required wall anchors shall be tested in pullout by an approved testing laboratory. The minimum number tested shall be four per floor, with two tests at walls with joists framing into the wall and two tests at walls with joists parallel to the wall. The test apparatus shall be supported on the masonry wall at a minimum distance of the wall thickness from the anchor tested. The rod anchor shall be given a preload of 300 lbs prior to establishing a datum for recording elongation. The tension test load reported shall be recorded at one-eighth inch relative movement of the anchor and the adjacent masonry surface. Results of all tests shall be reported. The report shall include the test results as related to the wall thickness and joist orientation. The allowable resistance value of the existing anchors shall be forty percent of the average of those tested anchors having the same wall thickness and joist orientation.

(i) Qualification tests for devices used for wall anchorage shall be tested with the entire tension load carried on the enlarged head at the exterior face of the wall. Bond on the part of the device between the enlarged head and the interior wall face shall be eliminated for the qualification tests. The resistance value assigned the device shall be twenty percent of the average of the ultimate loads.

SEC. 91.8810. INFORMATION REQUIRED ON PLANS.

(a) **General.** In addition to the seismic analysis required elsewhere in this Division, the licensed engineer or architect responsible for the seismic analysis of the building shall determine and record the information required by this Section on the approved plans.

(b) **Construction Details.** The following requirements with appropriate construction details shall be made part of the approved plans:

1. All unreinforced masonry walls shall be anchored at the roof level by tension bolts through the wall as specified in Table No. 88-I, or by approved equivalent at a maximum anchor spacing of six feet. Anchors installed in accordance with Section 91.8101(r) of this Code shall be accepted as conforming to this requirement.

All unreinforced masonry walls shall be anchored at all floors with tension bolts through the wall or by existing rod anchors at a maximum anchor spacing of six feet. All existing rod anchors shall be secured to the joists to develop the required forces. The Department

may require testing to verify the adequacy of the embedded ends of existing rod anchors. Tests when required shall conform to Section 91.8809(h).

When access to the exterior face of the masonry wall is prevented by proximity of an existing building, wall anchors conforming to Items 5 and 6 in Table 68-I may be used.

Alternative devices to be used in lieu of tension bolts for masonry wall anchorage shall be tested as specified in Section 91.8809(i).

2. Diaphragm chord stresses of horizontal diaphragms shall be developed in existing materials or by addition of new materials.

3. Where trusses and beams other than rafters or joists are supported on masonry, ledgers or columns shall be installed to support vertical loads of the roof or floor members.

4. Parapets and exterior wall appendages not capable of resisting the forces specified in this Division shall be removed, stabilized or braced to insure that the parapets and appendages remain in their original position.

The maximum height of an unbraced, unreinforced masonry parapet above the lower of either the level of tension anchors or roof sheathing, shall not exceed one and one-half (1½) times the thickness of the parapet wall. If the required parapet height exceeds this maximum height, a bracing system designed for the force factors specified in Table 88-E and Table 23-J for walls shall support the top of the parapet. Parapet corrective work must be performed in conjunction with the installation of tension roof anchors. (Added by Ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

The minimum height of a parapet above the wall anchor shall be twelve (12) inches. (Added by Ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

EXCEPTION: If a reinforced concrete beam is provided at the top of the wall, the minimum height above the wall-anchor may be six (6) inches. (Added by Ord. No. 159,623, Eff. 1/27/85, Oper. 1/30/85.)

5. All deteriorated mortar joints in unreinforced masonry walls shall be pointed with type S or N mortar. Prior to any pointing, the wall surface must be raked and cleaned to remove loose and deteriorated mortar. All preparation and pointing shall be done under the continuous inspection of a Registered Deputy Building Inspector certified to inspect masonry or concrete. At the conclusion of the project, the Inspector shall submit a written report to the Department setting forth the portion of work inspected.

6. Repair details of any cracked or damaged unreinforced masonry wall required to resist forces specified in this Division.

(c) **Existing Construction.** The following existing construction information shall be made part of the approved plans:

1. The type and dimensions of existing walls and the size and spacing of floor and roof members.

2. The extent and type of existing wall anchorage to floors and roof.

3. The extent and type of parapet corrections which were performed in accordance with Section 91.8101(r) of this Code.

4. Accurately dimensioned floor plans and masonry wall elevations

showing dimensioned openings, piers, wall thickness and heights.

5. The location of cracks or damaged portions of unreinforced masonry walls requiring repairs.

6. The type of interior wall surfaces and if reinstalling or anchoring of ceiling plaster is necessary.

7. The general condition of the mortar joints and if the joints need pointing.

TABLE NO. 88-A
RATING CLASSIFICATIONS

TYPE OF BUILDING	CLASSIFICATION
Essential Building	I
High Risk Building	II
Medium Risk Building	III
Low Risk Building	IV

TABLE NO. 88-B TIME LIMITS FOR COMPLIANCE			
REQUIRED ACTION BY OWNER	OBTAIN BUILDING PERMIT WITHIN	COMMENCE CONSTRUCTION WITHIN	COMPLETE CONSTRUCTION WITHIN
Complete Structural Alterations or Building Demolition	1 year	180 days*	3 years
Wall Anchor Installation	180 days	270 days	1 year

* Measured from date of building permit issuance.

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TABLE NO. 88-C
(Amended by Ord. No. 160,451, Eff. 11/25/85.)
SERVICE PROVISIONS AND EXTENDED TIME PROVISIONS**

Rating Classification	Occupant Load	Extension of Time if Wall Anchors are Installed	Minimum Time Periods for Service of Order
I (Highest Priority)	Any	One Year	0
II	100 or more	One Year	90 days
III	100 or more	One Year	One Year
	More than 50, but less than 100	One Year	Two years
	More than 19, but less than 51	One Year	Three years
IV (Lowest Priority)	Less than 20	One Year	Four years

**Buildings which have obtained a building permit for wall anchors and met the time schedule in 88-B for wall anchor installation may utilize the time extensions which are permitted in Table 88-C prior to the adoption of this ordinance. (Added by Ord. No. 160,451, Eff. 11/25/85.)

TABLE NO. 88-D
HORIZONTAL FORCE FACTORS BASED
ON RATING CLASSIFICATION

RATING CLASSIFICATION	IKCS
I	0.186
II	0.133
III & IV	0.100

TABLE NO. 88-E
HORIZONTAL FORCE FACTORS "IS"
FOR PARTS OR PORTIONS OF STRUCTURES

RATING CLASSIFICATION	IS
I	1.50
II	1.00
III & IV	0.75

BUILDING REGULATIONS

TABLE NO. 88-F
HORIZONTAL FORCE FACTOR "C" FOR PARTS OR
PORTIONS OF BUILDINGS OR OTHER STRUCTURES

Part or Portion of Buildings	Direction of Force	Value of C
Exterior bearing and non-bearing walls, interior bearing walls and partitions, interior non-bearing walls and partitions over ten feet in height, masonry fences over six feet in height.	Normal to Flat Surface	0.20
Cantilever parapet and other cantilever walls, except retaining walls.	Normal to Flat Surface	1.00
Exterior and interior ornamentations and appendages.	Any Direction	1.00
When connected to or a part of a building; towers, tanks, towers and tanks plus contents, racks over 8 feet 3 inches in height plus contents, chimneys, smokestacks, and penthouses.	Any Direction	0.20
When connected to or a part of a building: Rigid and rigidly mounted equipment and machinery not required for continued operation of essential occupancies.	Any Horizontal Direction	0.20
Tanks plus effective contents resting on the ground.	Any Direction	0.12
Floors and roofs acting as diaphragms.	In the plane of the diaphragm	0.12
Prefabricated structural elements, other than walls, with force applied at center of gravity of assembly.	Any Horizontal Direction	0.30
Connections for exterior panels or elements.	Any Direction	2.00

NOTES:

- (1) See Section 91.8808(b) for use of C_p .
- (2) When located in the upper portion of any building with an ratio of 5 to 1 or greater the value shall be increased by 50%.
- (3) For flexible and flexibly mounted equipment and machinery, the appropriate values for C shall be determined with consideration given to both the dynamic properties of the equipment and machinery and to the building or structure in which it is placed.
- (4) The W for storage racks shall be the weight of the racks plus contents. The value of C for racks over two storage support levels in height shall be 0.16 for the levels below the top two levels.
- (5) The design of the equipment and machinery and their anchorage is an integral part of the design and specification of such equipment and machinery. The structure to which the equipment or machinery is mounted shall be capable of resisting the anchorage forces (see also Section 91.2312(k)).

- (6) Floor and roofs acting as diaphragms shall be designed for a minimum force resulting from a C of .12 applied to W unless a greater force results from the distribution of lateral forces in accordance with Section 91.2312(e).

TABLE NO. 88-G		
ALLOWABLE VALUE OF HEIGHT-THICKNESS RATIO OF UNREINFORCED MASONRY WALLS WITH MINIMUM QUALITY MORTAR. (1). (2).		
	BUILDINGS WITH CROSSWALLS AS DEFINED BY SECTION 91.8803	ALL OTHER BUILDINGS
Walls of One Story Buildings	16	13
First Story Wall of Multi-Story Buildings	16	15
Walls in Top Story of Multi-Story Buildings	14	9
All Other Walls	16	13

NOTES:

- (1) Minimum quality mortar shall be determined by laboratory testing in accordance with Section 91.8809(e).
- (2) Table 88-G is not applicable to buildings of rating classification I. Walls of buildings within rating classification I shall be analyzed in accordance with Section 91.8808(f).

BUILDING REGULATIONS

TABLE NO. 88-H
VALUES FOR EXISTING MATERIALS

NEW MATERIALS OR CONFIGURATION OF MATERIALS (1)	ALLOWABLE VALUES
1. HORIZONTAL DIAPHRAGMS	
a. Roofs with straight sheathing and roofing applied directly to the sheathing.	100 lbs. per foot for seismic shear.
b. Roofs with diagonal sheathing and roofing applied directly to the sheathing.	400 lbs. per foot for seismic shear
c. Floors with straight tongue and groove sheathing.	150 lbs per foot for seismic shear.
d. Floors with straight sheathing and finished wood flooring.	300 lbs. per foot for seismic shear.
e. Floors with diagonal sheathing and finished wood flooring.	450 lbs. per foot for seismic shear.
f. Floors or roofs with straight sheathing and plaster applied to the joist or rafters.(2)	Add 50 lbs. per foot to the allowable values for items 1a and 1c.
2. SHEAR WALLS	
Wood stud walls with lath and plaster	100 lbs. per foot each side for seismic shear.
3. PLAIN CONCRETE FOOTINGS.	$f' = 1500$ psi unless otherwise shown by tests.
4. DOUGLAS FIR WOOD	Allowable stress same as No. 1 D.F. (3)
5. REINFORCING STEEL	$f = 18,000$ lbs. per t square inch maximum. (3)
6. STRUCTURAL STEEL	$f = 20,000$ lbs. per t square inch maximum. (3)

NOTES:

- (1) Material must be sound and in good condition.
- (2) The wood lath and plaster must be reattached to existing joists or rafters in a manner approved by the Department.
- (3) Stresses given may be increased for combinations of loads as specified in Section 98.8808(g)2.

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<p>TABLE NO. 88-I ALLOWABLE VALUES OF NEW MATERIALS USED IN CONJUNCTION WITH EXISTING CONSTRUCTION</p>	
NEW MATERIALS OR CONFIGURATION OF MATERIALS	ALLOWABLE VALUES
<p>1. HORIZONTAL DIAPHRAGMS</p> <p>Plywood sheathing applied directly over existing straight sheathing with ends of plywood sheets bearing on joists or rafters and edges of plywood located on center of individual sheathing boards.</p>	<p>Same as specified in Table No. 25-J of this Code for blocked diaphragms.</p>
<p>2. SHEAR WALLS</p> <p>a. Plywood sheathing applied directly over existing wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing.</p> <p>b. Dry wall or plaster applied directly over existing wood studs.</p> <p>c. Dry wall or plaster applied to plywood sheathing over existing wood studs.</p> <p>SHEAR BOLTS</p>	<p>Same as values specified in Table No. 25-K for shear walls.</p> <p>75 per cent of the values specified in Table No. 47-I</p> <p>33 1/3 per cent of the values specified in Table No. 47-I.</p>
<p>3. Shear bolts and shear dowels embedded a minimum of 8 inches into unreinforced masonry walls. Bolt centered in a 2 1/2 inch diameter hole with dry-pack or non-shrink grout around circumference of bolt or dowel.(1) (3)</p> <p>TENSION BOLTS</p>	<p>100 percent of the values for plain masonry specified in Table No. 24-G. No values larger than those given for 3/4 inch bolts shall be used.</p>
<p>4. Tension bolts and tension dowels extending entirely through unreinforced masonry walls secured with bearing plates on far side of wall with at least 30 sq. inches of area.(2) (3)</p> <p>WALL ANCHORS (91.8810(b)1.)</p>	<p>1200 lbs. per bolt or dowel.</p>

BUILDING REGULATIONS

TABLE NO. 88-I
ALLOWABLE VALUES OF NEW MATERIALS USED
IN CONJUNCTION WITH EXISTING CONSTRUCTION

NEW MATERIALS OR CONFIGURATION OF MATERIALS	ALLOWABLE VALUES
5. Bolts extending to the exterior face of the wall with a 2 1/2 inch round plate under the head. Install as specified for shear bolts. Spaced not closer than 12 inches on centers. (1) (2) (3)	600 lbs. per bolt.
6. Bolts or dowels extending to the exterior face of the wall with a 2 1/2 inch round plate under the head and drill at an angle of 22 1/2 degrees to the horizontal. Installed as specified for shear bolts. (1) (2) (3)	1200 lbs. per bolt or dowel.
INFILLED WALLS	
7. Reinforced masonry infilled openings in existing unreinforced masonry walls with keys or dowels to match reinforcing.	Same as values specified for unreinforced masonry walls.
REINFORCED MASONRY	
8. Masonry piers and walls reinforced per Section 91.2419	Same as values specified in Table No. 24-B.
REINFORCED CONCRETE	
9. Concrete footings, walls and piers reinforced as specified in Division 26 and designed for tributary loads.	Same as values specified in Division 26 of this Code.
EXISTING FOUNDATION LOADS	
10. Foundation loads for structures exhibiting no evidence of settlement.	Calculated existing foundation loads due to maximum dead load plus live load may be increased 25 percent for dead load, and may be increased 50 percent for dead load plus seismic load required by this Division

NOTES:

- (1) Bolts and dowels to be tested as specified in Section 91.8809(f).
- (2) Bolts and dowels to be 1/2 inch minimum in diameter.
- (3) Drilling for bolts and dowels shall be done with an electric rotary drill. Impact tools shall not be used for drilling holes or tightening anchor and shear bolt nuts.

TABLE NO. 88-J
ALLOWABLE SHEAR STRESS FOR TESTED
UNREINFORCED MASONRY WALLS

Eighty percent of test results in psi not less than	Average test results of cores in psi	Seismic in-plane shear based on gross area
30 plus axial stress	20	3 psi*
40 plus axial stress	27	4 psi*
50 plus axial stress	33	5 psi*
100 plus axial stress or more	67 or more	10 psi max*

* Allowable shear stress may be increased by addition of 10% of the axial stress due to the weight of the wall directly above.

I. DAM SAFETY

1. California Division of Safety of Dams

The California Water Code (Sec. 6027) contains most of the legislation regulating the siting, construction and maintenance of dams and reservoirs in California. Specific provisions for tort liability for dams is contained in the California Government Code section 831.8.

The California Division of Safety of Dams oversees the maintenance and operation of all dams in the State for safety, and specifically earthquake safety. Major legislation arose from the 1928 St. Francis dam failure. Further regulations followed the failure of the Baldwin Hills Reservoir in 1963. These requirements relate to the inspection and strengthening of water impoundment projects under State jurisdiction. Following the 1971 San Fernando earthquake, a new state law required all dam owners to identify liquefaction potential associated with hydraulic fill dams and other potentially unsafe water impoundments.

The Division of Safety of Dams provides independent review of the construction, repair, alteration and supervision of dams with respect to safety, except when such facility is operated by the federal government, for other jurisdictional reasons or size limitations.

2. Dam Safety Act

The Dam Safety Act (Cal. Government Code section 8589.5; see below) was passed into law following the San Fernando earthquake. This Act requires the submission of inundation maps for most dams showing the area of potential flooding in the event of total or partial dam failure (some dams are exempt because of size or because they should not pose a threat to property). Maps should be submitted to the Office of Emergency Services and local plans can then be developed for the emergency evacuation and control of populated areas below dams. The Dam Safety Act clearly mandates the creation of inundation maps but fails to specify deadlines for such maps.

§ 8589.5. Submission and review of inundation maps; Designation of areas affected by dam failure and adoption of emergency procedures; Waiver of requirements

(a) Inundation maps showing the areas of potential flooding in the event of sudden or total failure of any dam, the partial or total failure of which the Office of Emergency Services determines, after consultation with the Department of Water Resources, would result in death or personal injury, shall be prepared and submitted as provided in this subdivision within six months after the effective date of this section, unless the time for submission of such maps is extended for reasonable cause by the Office of Emergency Services. The local governmental organization, utility, or other owner of any dam so designated shall submit to the Office of Emergency Services one such map which shall delineate potential flood zones that could result in the event of dam failure when the reservoir is at full capacity or if the local governmental organization, utility, or other owner of any dam shall determine it to be desirable he shall submit three such maps, which shall delineate potential flood zones that could result in the event of dam failure when the reservoir is at full capacity, at median-

storage level, and at normally low-storage level. After submission of copies of such map or maps, the Office of Emergency Services shall review the map or maps, and shall return that map or maps which do not meet the requirements of this subdivision, together with recommendations relative to conforming to such provisions. Maps rejected by the Office of Emergency Services shall be revised to conform to such recommendations and resubmitted. The Office of Emergency Services shall keep on file those maps which conform to the provisions of this subdivision. Maps approved pursuant to this subdivision shall also be kept on file with the Department of Water Resources. The owner of a dam shall submit final copies of such maps to the Office of Emergency Services which shall immediately submit identical copies to the appropriate public safety agency of any city, county, or city and county likely to be affected.

(b) Based upon a review of inundation maps submitted pursuant to subdivision (a) or based upon information gained by an onsite inspection and consultation with the affected local jurisdiction when the requirement for an inundation map is waived pursuant to subdivision (d), the Office of Emergency Services shall designate areas within which death or personal injury would, in its determination, result from the partial or total failure of a dam. The appropriate public safety agencies of any city, county, or city and county, the territory of which includes such an area, shall adopt emergency procedures for the evacuation and control of populated areas below such dams. The Office of Emergency Services shall review such procedures to determine whether adequate public safety measures exist for the evacuation and control of populated areas below the dams, and shall make recommendations with regard to the adequacy of such procedures to the concerned public safety agency. In conducting such review the Office of Emergency Services shall consult with appropriate state and local agencies.

Emergency procedures specified in this subdivision shall conform to local needs, and may be required to include any of the following elements or any other appropriate element, in the discretion of the Office of Emergency Services: (1) delineation of area to be evacuated; (2) routes to be used; (3) traffic control measures; (4) shelters to be activated for the care of the evacuees; (5) methods for the movement of people without their own transportation; (6) identification of particular areas or facilities in the flood zones which will not require evacuation because of their location on high ground or similar circumstances; (7) identification and development of special procedures for the evacuation and care of people from unique institutions; (8) procedures for the perimeter and interior security of the area, including such things as passes, identification requirements, and antilooting patrols; (9) procedures for the lifting of the evacuation and

reentry of the area; and (10) details of which organizations are responsible for these functions and the material and personnel resources required. It is the intent of the Legislature to encourage each agency that prepares such emergency procedures to establish a procedure for their review every two years.

(c) "Dam," as used in this section, has the same meaning as specified in Sections 6002, 6003, and 6004 of the Water Code.

(d) Under certain exceptional conditions as follows, the Office of Emergency Services may waive the requirement for an inundation map:

(1) Where the effects of potential inundation in terms of death or personal injury as determined through onsite inspection by the Office of Emergency Services in consultation with the affected local jurisdictions, can be ascertained without an inundation map; and

(2) Where adequate evacuation procedures can be developed without benefit of an inundation map.

(e) If development should occur in any exempted area after a waiver has been granted, the local jurisdiction shall notify the Office of Emergency Services of such development. All waivers shall be reevaluated every two years by the Office of Emergency Services.

Added Stats 1972 ch 780 § 2; Amended Stats 1973 ch 762 § 1, effective September 25, 1973; Stats 1974 ch 314 § 1, effective May 31, 1974.

Amendments:

1973 Amendment: Amended subd (a) by (1) adding "one such map which shall delineate potential flood zones that could result in the event of dam failure when the reservoir is at full capacity or if the local governmental organization, utility, or other owner of any dam shall determine it to be desirable he shall submit" in the second sentence; (2) adding "map or" wherever it appears in the third sentence; (3) substituting "that" for "those" after "shall return" in the third sentence; and (4) substituting "shall submit final" for "submitting" and "which shall immediately" for "shall concurrently" in the last sentence.

1974 Amendment: Added (1) "or based upon information gained by an onsite inspection and consultation with the affected local jurisdiction when the requirement for an inundation map is waived pursuant to subdivision (d)" in subd (b); and (2) subds (d) and (e).

Note—Stats 1972 ch 780 also provides: § 1. The Legislature intends, by this act, to establish procedures for the emergency evacuation and control of populated areas below dams. The value of such a program has been demonstrated by that of the Los Angeles Department of Water and Power, administered by the Los Angeles Police Department, which has been very successful.

Cross References:

Supervision of dams and reservoirs: Wat C §§ 6000 et seq.

I. HAZARDOUS MATERIALS

The problems of hazardous materials in California are widespread and effect many aspects of health, safety, emergency planning and labor force risks and rights. The use, treatment and disposal of such material impacts the land, water and air. Consequently, legal provisions and regulations are scattered throughout the California Health and Safety, Water, Public Resources and Government codes. The Business and Professional Code is often referenced to assess penalties and punishments for violations involving hazardous materials. Control, regulation and planning for hazardous materials fall under the jurisdiction of an equally diverse group of agencies.

A tremendous increase in the level of awareness and, consequently, the amount of legislation related to hazardous materials in the environment, has occurred in the past decade. However, to date, no comprehensive body of law exists to address the myriad problems associated with the widespread use of hazardous materials, toxic wastes and other potentially dangerous substances.

Recent legislation has focused on problems related to the production, storage and transportation of hazardous materials including the treatment of hazardous waste. Although few specifically address earthquakes, there is no doubt that a major earthquake in a heavily industrialized portion of California may result in the release of significant quantities of hazardous materials. Such accidental and possibly catastrophic releases may cause injury and environmental contamination. Questions of liability for local governments are reviewed in the section containing hypothetical situations; as a general rule, risk of liability is greatest in situations where a local jurisdiction handles its own hazardous material.

The following State regulations relate to hazardous materials and may be important factors in earthquake liability findings: provisions that require counties to inventory all potentially leaky underground storage tanks, regulations of storage and emergency response plan (AB 2185/ 2187; 1985) and acute hazardous risk management plans (AB 3777/ 1059; 1986).

This report contains a brief section on underground storage tanks (Sections 25280, 25282 and 25283). The "Legislative findings" discuss the purpose of the act, Section 25282 calls for the creation of a list of hazardous substances and Section 25283 provides provisions for county compliance.

Health and Safety code Sections 25503 through 25504 (see below) contain provisions for business and area plans. Sections 25507 through 25509.3 regulate the report of release of hazardous materials and specify requirements for annual hazardous materials inventories. Amendments signed in September 1988 modified several of these sections and added others. Where these sections appear in this report (sec. 25503, 25507, 25509) they reflect the most current amendments. Several significant changes included in these amendments are: an expanded definition of business to include any agency, department, office, board, commission or bureau of the state government and the federal government; and explicit immunity to public entities for liability for any damages or injury resulting from an inadequate or negligent review of a business plan.

Article 2 of the Health and Safety code (Sections 25531 through 25541), Hazardous Materials Management, provides definitions and provisions for handling, inspection, and prevention programs relating to hazardous materials and are reproduced below.

The following are excerpts from the California Health and Safety Code.

UNDERGROUND STORAGE

Legislative findings:

§ 25280. Legislative findings and declarations

(a) The Legislature finds and declares as follows:

(1) Substances hazardous to the public health and safety and to the environment are stored prior to use or disposal in thousands of underground locations in the state.

(2) Underground tanks used for the storage of hazardous substances and wastes are potential sources of contamination of the ground and underlying aquifers, and may pose other dangers to public health and the environment.

(3) In several known cases, underground storage has resulted in undetected and uncontrolled releases of hazardous substances into the ground. These releases have contaminated public drinking water supplies and created a potential threat to the public health and to the waters of the state.

(4) The Legislature has previously enacted laws regulating the management of hazardous wastes, including statutes providing the means to clean up releases of hazardous substances into the environment when the public health, domestic livestock, wildlife, and the environment are endangered. Current laws do not specifically govern the construction, maintenance, testing, and use

of underground tanks used for the storage of hazardous substances, or the short-term storage of hazardous wastes prior to disposal, for the purposes of protecting the public health and the environment.

(5) The protection of the public from releases of hazardous substances is an issue of statewide concern.

(b) The Legislature therefore declares that it is in the public interest to establish a continuing program for the purpose of preventing contamination from, and improper storage of, hazardous substances stored underground. It is the intent of the Legislature, in enacting this chapter, to establish orderly procedures that will ensure that newly constructed underground storage tanks meet appropriate standards and that existing tanks be properly maintained, inspected, and tested so that the health, property, and resources of the people of the state will be protected. *(Added by Stats. 1984, c. 1038, § 1.)*

Relevant Sections 25282 and 25283

§ 25282. Master list of hazardous substances

(a) The department shall compile a comprehensive master list of hazardous substances. The master list shall be made available to the public and mailed to each local agency no later than June 30, 1984, notwithstanding any other provision of law, including Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. Local agencies and owners or operators of underground storage tanks shall use the master list or, when adopted, the revised list adopted pursuant to subdivision (b), to determine which underground storage tanks require permits pursuant to this chapter. Hazardous substances included on the list may be denominated by scientific, common, trade, or brand names.

(b) The department may revise, when appropriate, the master list of all the hazardous substances specified in subdivision (a). The revised list of hazardous substances shall be prepared and adopted, and may be further revised, in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. *(Formerly § 25281, added by Stats. 1983, c. 1046, § 3. Renumbered § 25282 and amended by Stats. 1984, c. 1038, § 3.)*

§ 25283. Implementation of chapter

Every county shall implement this chapter pursuant to the regulations adopted by the board. A city may, by ordinance, assume responsibility for the implementation of this chapter pursuant to the regulations adopted by the board and, if so, shall have exclusive jurisdiction within the boundary of the city for the purposes of carrying out this chapter. A city which assumes responsibility for implementation of this chapter shall assume this responsibility on or before January 1, 1986, and shall provide notice of its program and consult with the county in which the city is located. A county shall designate a department, office, or other agency of that county as the local agency responsible for administering and enforcing this chapter, and a city which assumes responsibility for implementing this chapter shall also make a similar designation. *(Formerly § 25282, added by Stats. 1983, c. 1046, § 3. Renumbered § 25283 and amended by Stats. 1984, c. 1038, § 4; Stats. 1985, c. 1228, § 1, eff. Sept. 30, 1985.)*

MINIMUM STANDARDS FOR AREA AND BUSINESS PLANS

25503. (a) Not later than September 1, 1986, the office shall adopt, after public hearing and consultation with the office of the State Fire Marshal and other appropriate public entities, regulations for minimum standards for business plans and area plans. All business plans and area plans shall meet the standards adopted by the office.

(b) The standards for business plans in the regulations adopted pursuant to subdivision (a) shall do all of the following:

(1) Set forth minimum requirements of adequacy, and not preclude the imposition of additional or more stringent requirements by local government.

(2) Take into consideration and adjust for the size and nature of the business, the proximity of the business to residential areas and other populations, and the nature of the damage potential of its hazardous materials in establishing standards for subdivisions (b) and (c) of Section 25504.

(3) Take into account the existence of local area and business plans which meet the requirements of this chapter so as to minimize the duplication of local efforts, consistent with the objectives of this chapter.

(4) Define what releases and threatened releases are required to be reported pursuant to Section 25507. The office shall consider the existing federal reporting requirements in determining a definition of reporting releases pursuant to Section 25507.

(c) An administering agency shall establish an area plan for emergency response to a release or threatened release of a hazardous material within its jurisdiction. An area plan is not a statute, ordinance, or regulation for purposes of Section 669 of the Evidence Code. The standards for area plans in the regulations adopted pursuant to subdivision (a) shall provide for all of the following:

(1) Procedures and protocols for emergency rescue personnel, including the safety and health of those personnel.

(2) Preemergency planning.

(3) Notification and coordination of onsite activities with state, local, and federal agencies, responsible parties, and special districts.

- (4) Training of appropriate employees.
- (5) Onsite public safety and information.
- (6) Required supplies and equipment.
- (7) Access to emergency response contractors and hazardous waste disposal sites.
- (8) Incident critique and followup.
- (9) Requirements for notification to the office of reports made pursuant to Section 25507.

(d) The administering agency shall submit a copy of its proposed area plan, within 180 days after adoption of regulations by the office establishing area plan standards, to the office for review. The office shall notify the administering agency as to whether the area plan is adequate and meets the area plan standards. The administering agency shall within 45 days of this notice submit a corrected area plan.

The administering agency shall certify to the office every three years that it has conducted a complete review of its area plan and has made any necessary revisions. Any time an administering agency makes any substantial changes to its area plan, it shall forward the changes to the office within 14 days after the changes have been made.

(e) An administering agency shall submit to the office, along with its area plan, both of the following:

(1) The basic provisions of a plan to conduct onsite inspections of businesses subject to this chapter by either the administering agency or other designated entity. These inspections shall ensure compliance with this chapter and shall identify existing safety hazards that could cause or contribute to a release and, where appropriate, enforce any applicable laws and suggest preventative measures designed to minimize the risk of the release of hazardous material into the workplace or environment. The requirements of this paragraph do not alter or affect the immunity provided a public entity pursuant to Section 818.6 of the Government Code.

(2) A plan to institute a data management system which will assist in the efficient access to and utilization of information collected under this chapter. This data management system shall be in operation within two years after the business plans are required to be submitted to the administering agency pursuant to Section 25505.

(f) The regulations adopted by the office pursuant to subdivision (a) shall include an optional model reporting form for business and area plans.

§ 25503.5. Business plans for emergency response to release of hazardous material

(a) Any business, except as provided in subdivision (b), which handles a hazardous material or a mixture containing a hazardous material which has a quantity at any one time during the reporting year equal to, or greater than, a total weight of 500 pounds, or a total volume of 55 gallons, or 200 cubic feet at standard temperature and pressure for compressed gas, shall establish and implement a business plan for emergency response to a release or threatened release of a hazardous material in accordance with the standards in the regulations adopted pursuant to Section 25503.

(b) (1) Hazardous material contained solely in a consumer product for direct distribution to, and use by, the general public is exempt from the business plan requirements of this chapter unless the administering agency has found, and has provided notice to the business handling the product, that the handling of certain quantities of the product requires the submission of a business plan, or any portion thereof, in response to public health, safety, or environmental concerns.

(2) In addition to the authority specified in paragraph (4), the administering agency may, in exceptional circumstances, following notice and public hearing, exempt from the inventory provisions of this chapter any hazardous substance specified in subdivision (k) of Section 25501, if the administering agency finds that the hazardous substance would not pose a present or potential danger to the environment or to human health and safety if the hazardous substance was released into the environment. The administering agency shall specify in writing the basis for granting any exemption under this paragraph. The administering agency shall send a notice to the office within five days of the effective date of any exemption granted pursuant to this paragraph.

(3) The administering agency, upon application by a handler, may, exempt a handler under the conditions it deems proper from any portion of the business plan upon a written finding that the exemption would not pose a significant present or potential hazard to human health or safety or to the environment or affect the ability of the administering agency and emergency rescue personnel to effectively respond to the release of a hazardous material, and that there are unusual circumstances justifying this exemption. The administering agency shall specify in writing the basis for any exemption under this paragraph.

(4) The administering agency upon application by a handler may exempt a hazardous material from the inventory provisions of this chapter upon proof that the material does not pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or environment. The administering agency shall specify in writing the basis for any exemption under this paragraph.

(5) An administering agency shall exempt a business operating a farm for purposes of cultivating the soil or raising or harvesting any agricultural or horticultural commodity from filing the information in the business plan required by subdivisions (b) and (c) of Section 25504 if all of the following requirements are met:

(A) The handler annually provides the inventory of information required by Section 25509 to the county agricultural commissioner before January 1 of each year.

(B) Each building in which hazardous materials subject to this chapter are stored is posted with signs, in accordance with regulations which the office shall adopt, which provide notice of the storage of any of the following:

(i) Pesticides.

(ii) Petroleum fuels and oil.

(iii) Types of fertilizers.

(C) Each county agricultural commissioner forwards the inventory to the administering agency within 30 days after receiving the inventory.

(c) The administering agency shall provide all information obtained from completed inventory forms, upon request, to emergency rescue personnel on a 24-hour basis.

(d) The administering agency shall adopt procedures to provide for public input when approving any applications submitted pursuant to paragraph (3) or (4) of subdivision (b).

Added Stats 1985 ch 1167 § 1. Amended Stats 1986 ch 463 § 5, effective July 23, 1986.

Amendments:

1986 Amendment: (1) Substituted subd (a) for former subd (a) which read: "(a) Within the boundaries of each county and any city which has assumed responsibility for the implementation of this chapter pursuant to Section 25502, any business, except as provided in subdivision (b), which handles a hazardous material shall establish a business plan for emergency response to a release or threatened release of a hazardous material in accordance with the standards adopted pursuant to Section 25503."; (2) substituted "for direct" for "direct for" before "distribution to" in subd (b)(1); (3) substituted subd (b)(2) for former subd (b)(2) which read: "(2) Any business handling less than 500 pounds, 55 gallons, or 200 cubic feet at standard temperature and pressure for compressed gas, in the aggregate at any one time in a month, of a product or formulation containing a hazardous material is exempt from the business plan requirements of this chapter unless the administering agency has found, and has provided notice to the business handling the product or formulation, that the weight or volume limits specified in this paragraph, are to be lowered for a specific hazardous material in response to public health, safety, or environmental concerns."; (4) amended subd (b)(3) by (a) adding "under the conditions it deems proper" after "exempt a handler"; (b) substituting "pose a significant present or potential hazard to human health or safety or to the environment or affect" for "effect" before "the ability"; and (c) adding the comma after "hazardous material"; (5) added subds (b)(5); (6) substituted subd (c) for former subd (c) which read: "(c) The administering agency shall require that all business plans have 24-hour availability to emergency rescue personnel. At the discretion of the administering agency or the emergency rescue personnel, copies of area plans and business plans, or portions thereof, may be maintained by the emergency rescue personnel for their use."; and (7) added subd (d).

§ 25503.7. Storage of hazardous substance in railroad car

(a) When any railroad car containing any hazardous material or hazardous substance remains within the same railroad facility or business facility for more than 30 days, or a business knows or has reason to know that any railroad car containing any hazardous material or hazardous substance will remain at the same railroad facility or business facility for more than 30 days, the hazardous material or hazardous substance is deemed stored at that location and subject to the requirements of this chapter.

(b) Notwithstanding Section 25510, a business handling hazardous materials or hazardous substances which are stored in a manner subject to subdivision (a) shall immediately notify the administering agency whenever a hazardous material or hazardous substance is stored in a railroad car.

Added Stats 1986 ch 909 § 1.

§ 25504. Contents of business plans

Business plans shall include all of the following:

(a) The inventory of information required by Section 25509 and whatever additional information that the administering agency finds is necessary to protect the health and safety of persons, property, or the environment. Any such information is, however, subject to trade secret protection pursuant to Section 25511.

(b) Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material, including, but not limited to, all of the following:

(1) Immediate notification to the administering agency and to the appropriate local emergency rescue personnel.

(2) Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment.

(3) Evacuation plans and procedures, including immediate notice, for the business site.

(c) Training for all new employees and annual training, including refresher courses, for all employees in safety procedures in the event of a release or threatened release of a hazardous material, including, but not limited to, familiarity with the plans and procedures specified in subdivision (b). These training programs may take into consideration the position of each employee.

(d) Any business required to file a pipeline operations contingency plan in accordance with the California Pipeline Safety Act of 1981 (Chapter 5.5 (commencing with Section 51010) of Part 3 of Division 1 of Title 5 of the Government Code) and the regulations of the Department of Transportation, found in Part 195 of Title 49 of the Code of Federal Regulations, may file a copy of those plans with the administering agency instead of filing an emergency response plan specified in subdivision (b).

(e) Any business operating a farm exempted by paragraph (5) of subdivision (b) of Section 25503.5 from filing the information specified in subdivisions (b) and (c), shall, notwithstanding this exemption, provide the training programs specified in subdivision (c).

Added Stats 1985 ch 1167 § 1. Amended Stats 1986 ch 463 § 6, effective July 23, 1986.

Amendments:

1986 Amendment: (1) Substituted subd (b)(1) for former subd (b)(1) which read: "(1) Immediate notification to appropriate local emergency rescue personnel and the office."; (2) deleted "and for the affected public" at the end of subd (b)(3); (3) added the second sentence of subd (c); and (4) added subds (d) and (e).

REPORT OF RELEASE OF HAZARDOUS MATERIALS AND ANNUAL INVENTORY

Discovery and report of release of hazardous material

25507. (a) Except as provided in subdivision (b), the handler or any employee, authorized representative, agent, or designee of a handler shall, upon discovery, immediately report any release or threatened release of a hazardous material to the administering agency, and to the office, in accordance with the regulations adopted pursuant to Section 25503. Each handler and any employee, authorized representative, agent, or designee of a handler shall provide all state, city, or county fire or public health or safety personnel and emergency rescue personnel with access to the handler's facilities.

(b) Subdivision (a) does not apply to any person engaged in the transportation of a hazardous material on a highway which is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.

§ 25508. Annual inventory

In order to carry out the purposes of this chapter, any employee or authorized representative of an administering agency has the authority specified in Section 25185, with respect to the premises of a handler, and in Section 25185.5, with respect to real property which is within 2,000 feet of the premises of a handler, except that this authority shall include inspections concerning hazardous material, in addition to hazardous waste.

Added Stats 1985 ch 1167 § 1. Amended Stats 1986 ch 463 § 13, effective July 23, 1986.

Amendments:

1986 Amendment: Substituted the section for the former section which read: "Unless exempted from the business plan requirements under this chapter, any business which handles a hazardous material shall annually submit a completed inventory form to the administering agency of the county or city in which the business is located."

Contents of inventory

25509. (a) The annual inventory form shall include, but shall not be limited to, information on all of the following which are handled in quantities equal to or greater than the quantities specified in subdivision (a) of Section 25503.5:

(1) A listing of the chemical name and common names of every hazardous substance or chemical product handled by the business.

(2) The category of waste, including the general chemical and mineral composition of the waste listed by probable maximum and minimum concentrations, of every hazardous waste handled by the business.

(3) A listing of the chemical name and common names of every other hazardous material or mixture containing a hazardous material handled by the business which is not otherwise listed pursuant to paragraph (1) or (2).

(4) The maximum amount of each hazardous material or mixture containing a hazardous material disclosed in paragraphs (1), (2), and (3) which is handled at any one time by the business over the course of the year.

(5) Sufficient information on how and where the hazardous materials disclosed in paragraphs (1), (2), and (3) are handled by the business to allow fire, safety, health, and other appropriate personnel to prepare adequate emergency responses to potential releases of the hazardous materials.

(6) The SIC Code number of the business if applicable.

(7) The name and phone number of the person representing the business and able to assist emergency personnel in the event of an emergency involving the business during nonbusiness hours.

(b) The administering agency may permit the reporting of the amount of hazardous material under this section by ranges, rather than a specific amount, as long as those ranges provide the information necessary to meet the needs of emergency rescue personnel, to determine the potential hazard from a release of the materials, and meets the purposes of this chapter.

(c) Except as provided in subdivision (d), the annual inventory form required by this section shall also include all inventory information required by Section 11022 of Title 42 of the United States Code, as that section reads on January 1, 1989, or as it may be subsequently amended.

The office may adopt or amend existing regulations specifying the inventory information required by this subdivision.

(d) If, pursuant to federal law or regulation, as it currently exists or as it may be amended, there is a determination that the inventory information required by subdivisions (a) and (b) is substantially equivalent to the inventory information required under the Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C. Sec. 11001 et seq.), the requirements of subdivision (c) shall not apply.

§ 25509.1. Collection of information from other agencies

Notwithstanding subdivision (a) of Section 25509, an administering agency may collect any or all of the information required to be reported in an inventory form from another public agency, under all of the following conditions:

- (a) The information collected is the same information required under subdivision (a) of Section 25509.
- (b) The administering agency receives this information not later than would otherwise be required under this chapter.
- (c) The information was originally provided by the handler to the public agency pursuant to a statutory requirement.

Added Stats 1986 ch 463 § 15, effective July 23, 1986.

§ 25509.3. Additional contents of inventory

The annual inventory required by Section 25509 shall also include the total estimated amounts of each hazardous waste handled by the business throughout the course of the year.

Added Stats 1986 ch 1260 § 2.

ARTICLE 2. HAZARDOUS MATERIALS MANAGEMENT

§ 25531. Legislative findings and declarations

The Legislature finds and declares that a significant number of chemical manufacturing and processing facilities generate, store, treat, handle, refine, process, and transport hazardous materials. The Legislature further finds and declares that, because of the nature and volume of chemicals handled at these facilities, some of those operations may represent a threat to public health and safety if chemicals are accidentally released.

The Legislature recognizes that the potential for explosions, fires, or releases of toxic chemicals into the environment exists. The protection of the public from uncontrolled releases or explosions of hazardous materials is of statewide concern.

There is an increasing capacity to both minimize and respond to releases of toxic air contaminants and hazardous materials once they occur, and to formulate efficient plans to evacuate citizens if these discharges or releases cannot be contained. However, programs designed to prevent these accidents are the most effective way to protect the community health and safety and the environment. These programs should anticipate the circumstances that could result in their occurrence and require the taking of necessary precautionary and preemptive actions, consistent with the nature of the hazardous materials handled by the facility and the surrounding environment. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25532. Definitions

Unless the context indicates otherwise, the following definitions govern the construction of this article:

(a) "Acutely hazardous material" means any chemical on the list prepared by the Environmental Protection Agency and classified as an acutely toxic material according to the criteria set forth in the Chemical Emergency Preparedness Program Interim Guidance document on November 1, 1985, and any supplemental amendments to the document.

(b) "Acutely hazardous materials accident risk" means a potential for the release of an acutely hazardous material into the environment which could produce a significant likelihood that persons exposed may suffer acute health effects resulting in significant injury or death.

(c) "Administering agency" means the department, office, or other agency of a county or city which is designated pursuant to Section 25502 to implement this chapter.

(d) "Handler" means any business which handles an acutely hazardous material, except where all of the acutely hazardous materials present at the business are handled in accordance with a removal or remedial action taken pursuant to the Carpenter-Presley-Tanner Hazardous Substance Account Act (Chapter 6.8 (commencing with Section 25300)).

(e) "Modified facility" means an addition or change to a facility or business which results in either a substantial increase in the amount of acutely hazardous materials

handled by the facility or business, or a significantly increased risk in handling an acutely hazardous material, as determined by the administering agency. "Modified facility" does not include an increase in production up to the facility's existing operating capacity or an increase in production levels up to the production levels authorized in a permit granted pursuant to Section 42300.

(f) "Registered Professional" means a professional engineer, registered pursuant to the Professional Engineers Act (Chapter 7 (commencing with Section 6700) of Division 3 of the Business and Professions Code), or other professional specialist who is qualified to perform and implement the RMPP for acutely hazardous materials.

(g) "Risk management and prevention program" or "RMPP" means all of the administrative and operational programs which are designed to prevent acutely hazardous materials accident risks, including, but not limited to, programs which include design safety of new and existing equipment, standard operating procedures, preventive maintenance programs, operator training and accident investigation procedures, risk assessment for unit operations, or operating alternatives, emergency response planning, and internal or external audit procedures to ensure that these programs are being executed as planned. (*Added by Stats.1986, c. 1260, § 3.*)

Library References

Words and Phrases (Perm. Ed.)

§ 25533. Acutely hazardous materials registration form; filing; contents; amendments; submission of certified risk management and prevention program; implementation

(a) On or before July 1, 1987, the Office of Emergency Services shall develop an acutely hazardous materials registration form to be completed by the owner or operator of each business in the state which, at any time, handles any acutely hazardous material. Except as provided in Section 25536, on or before September 1, 1987, any business which handles acutely hazardous materials in the amounts specified in subdivision (a) of Section 25536 shall file the registration form with the administering agency.

(b) The acutely hazardous materials registration form shall include, but is not limited to, all of the following information:

(1) The information included in the business plan prepared pursuant to Section 25504.

(2) A general description of the processes and principal equipment involved in the handling of the acutely hazardous materials.

(c) Within 30 days of any one of the following events, any business subject to this section shall submit to the administering agency an amendment to the registration form:

(1) Any handling of an acutely hazardous material which was not mentioned on the registration form.

(2) Any material or substantial alterations or additions to the business or activity which require changes in the risk management program that are different from, or absent in, the present program.

(3) Change of business address.

(4) Change of business ownership.

(5) Change of business name.

(d) Any business which submits a certified risk management and prevention program pursuant to subdivision (h) of Section 25534 shall implement the approved risk management and prevention program. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25534. Submission of risk management and prevention program; elements; considerations; additional supporting technical information; records; personnel; program revisions; persons who handle acutely hazardous materials; responsibilities

(a) Within 90 days after receiving an acutely hazardous material registration form filed pursuant to Section 25533, the administering agency may require the submission of an RMPP if the administering agency determines that the handler's operation may present an acutely hazardous materials accident risk. The handler shall prepare the RMPP in accordance with subdivision (c). The RMPP shall be prepared within 12 months following the request made by the administering agency pursuant to this section.

(b) In addition to any requirements imposed pursuant to subdivision (a), an owner or operator of a new or modified facility which will be used for the handling of acutely hazardous materials and which will commence operations on or after January 1, 1988, in the case of a new facility or commence the operations which will be modified on or after January 1, 1988, in the case of an existing facility, shall prepare a risk management and prevention program. The RMPP shall be approved by the administering agency pursuant to subdivision (e) of Section 25535.

(c) The RMPP shall include all of the following elements:

(1) A description of each accident involving acutely hazardous materials which has occurred at the business or facility within three years from the date of the request made pursuant to subdivision (a), together with a description of the underlying causes of the accident and the measures taken, if any, to avoid a recurrence of a similar accident.

(2) A report specifying the nature, age, and condition of the equipment used to handle acutely hazardous materials at the business or facility and any schedules for testing and maintenance. hazardous materials accident risk.¹

(3) Design, operating, and maintenance controls which minimize the risk of an accident involving acutely hazardous materials.

(4) Detection, monitoring, or automatic control systems to minimize potential acutely hazardous materials accident risks.

(5) A schedule for implementing additional steps to be taken by the business, in response to the findings of the assessment performed pursuant to subdivision (d), to reduce the risk of an accident involving acutely hazardous materials. These actions may include any of the following:

(A) Installation of alarm, detection, monitoring, or automatic control devices.

(B) Equipment modifications, repairs, or additions.

(C) Changes in the operations, procedures, maintenance schedules, or facility design.

(6) Auditing and inspection programs designed to allow the handler to confirm that the risk management and prevention program is effectively carried out.

(7) Recordkeeping procedures for the risk management and prevention program.

(d) The RMPP shall be based upon an assessment of the processes, operations, and procedures of the business, and shall consider all of the following:

(1) An offsite consequence analysis which, at a minimum, assumes a complete release of all acutely hazardous materials, pessimistic air dispersion parameters, and other adverse environmental conditions, to determine any potential acutely hazardous materials accident risk.

(2) The results of a probabilistic risk assessment, which quantifies the likelihood and consequences of an event involving a release of the acutely hazardous materials, and the uncertainties of the computed values of the event's likelihood and consequences, for any acutely hazardous material which has been determined, pursuant to the offsite consequence analysis, to present a possible acutely hazardous materials accident risk.

(e) The business shall submit to the administering agency any additional supporting technical information deemed necessary by the administering agency to clarify information submitted pursuant to subdivision (c).

(f) A handler shall maintain all records concerning a risk management and prevention program for a period of at least five years.

(g) The risk management and prevention program shall identify, by title, all personnel at the business who are responsible for carrying out the specific elements of the RMPP, and their respective responsibilities, and the RMPP shall include a detailed training program to ensure that those persons are able to implement the RMPP.

(h) The handler shall review the risk management and prevention program, and shall make necessary revisions to the RMPP at least every three years, but, in any event, within 60 days following a modification which would materially affect the handling of an acutely hazardous material.

(i) Any person who handles acutely hazardous materials and who owns or operates two or more business facilities which are substantially identical may prepare a single generic risk management and prevention program applicable to all those facilities if the handling of the acutely hazardous materials is substantially similar at all of those facilities.

(j) The risk management and prevention program, and any revisions required by subdivision (h), shall be certified as complete by a registered professional and the facility operator.

(k) Except as specified in subdivision (e) of Section 25535, the handler shall implement all activities and programs specified in the risk management and prevention program within one year following the certification made pursuant to subdivision (j). Implementation of the risk management and prevention program shall include carrying out all operating, maintenance, monitoring, inventory control, equipment inspection, auditing, recordkeeping, and training programs as required by the RMPP. The administering agency may grant an extension of this deadline upon a showing of good cause. (*Added by Stats.1986, c. 1260, § 3.*)

¹ So in chaptered law.

§ 25535. Certification of risk management prevention programs; notice; review of programs for adequacy; new or modified facilities

(a) Except as specified in subdivision (e), upon certification of a risk management and prevention program pursuant to subdivision (j) of Section 25534, the handler shall notify the administering agency in writing that the RMPP has been prepared and certified.

(b) Upon implementation of a risk management and prevention program pursuant to subdivision (k) of Section 25534, the handler shall notify the administering agency that the RMPP has been implemented and shall summarize the steps taken in preparation and implementation of the RMPP.

(c) The handler shall continue to carry out the program and activities specified in the risk management and prevention program at the business after the administering agency has been notified pursuant to subdivision (b). A copy of the plan shall be made available by the handler to the administering agency upon its written request.

(d) A representative of the administering agency may enter the facility of a handler which has submitted an RMPP to review the risk management and prevention programs for adequacy and to verify that all elements of the RMPP have been implemented.

(e) An owner or operator of a new or modified facility submitting an RMPP pursuant to subdivision (b) of Section 25534 shall submit the RMPP to the administering agency after the RMPP is certified as complete by a registered professional and the facility operator. The administering agency shall approve, disapprove, or suggest modifications to the RMPP within 90 days after the owner or operator submits the RMPP. The administer-

ing agency may authorize the air pollution control district or air quality management district in which the facility is located to conduct a technical review of the RMPP. The owner or operator shall implement all programs and activities in the RMPP before operations commence, in the case of a new facility, or before any new activities involving acutely hazardous materials are taken, in the case of a modified facility. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25536. Businesses handling specified amounts of acutely hazardous materials; submission of registration forms; exemptions; additional requirements

(a) Any business, except as provided in subdivisions (b) and (c), which handles an acutely hazardous material or a mixture containing an acutely hazardous material which has a quantity at any one time equal to, or greater than, a total weight of 500 pounds, or a total volume of 55 gallons, or 200 cubic feet at standard temperature and pressure for compressed gas, shall submit a registration form pursuant to Section 25533.

(b) The administering agency, upon application by an owner or operator of a business, may exempt any business from any requirement of this article, upon a written finding that the exemption would not present an acutely hazardous materials accident risk. The administering agency shall specify in writing the basis for any exemption issued pursuant to this subdivision.

(c) Before placing additional requirements upon a business, the administering agency shall determine that the existing law or regulatory programs fail to substantially address and mitigate the purposes of this article.

(d) If the administering agency finds, and provides notice to, a business handling an acutely hazardous material in quantities less than those specified in subdivision (a), that the quantity limits specified in subdivision (a) should be decreased for that specific acutely hazardous material because of public health, safety, or environmental concerns, the administering agency may require the business to submit a registration form pursuant to Section 25533. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25537. Inspections

The administering agency shall inspect every business required to be registered pursuant to Section 25534 at least once every three years to determine whether the business is in compliance with this article. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25538. Information required to be reported involving release of trade secrets; authorized disclosure; violations; punishment

(a) If a business believes that any information required to be reported by this article, involves the release of a trade secret, the business shall provide the information to the administering agency and shall notify the administering agency in writing of that belief. As used in this section, "trade secret" has the same meaning as found in subdivision (d) of Section 6254.7 of the Government Code and Section 1060 of the Evidence Code.

(b) Except as otherwise specified in this section, the administering agency shall not disclose any trade secret which is so designated by the owner or operator of a business.

(c) The administering agency may disclose trade secrets received by the administering agency pursuant to this article to authorized officers or employees of other governmental agencies only in connection with the official duties of that officer or employee pursuant to any law for the protection of health and safety.

(d) Any officer or employee or former officer or employee of the administering agency or any other government agency who, because of that employment or official position, has possession of, or has access to, information designated as a trade secret pursuant to this section, shall not knowingly and willfully disclose the information in any manner to any person not authorized to receive the information pursuant to this section. Notwithstanding Section 25515, any person who violates this subdivision, and who knows that disclosure of this information to the general public is prohibited by the section, shall, upon conviction, be punished by imprisonment in the county jail for not more than six months or by a fine of not more than one thousand dollars (\$1,000), or by both fine and imprisonment.

(e) Any information prohibited from disclosure pursuant to any federal statute or regulation shall not be disclosed.

(f) This section does not authorize any business to refuse to disclose to the administering agency any information required pursuant to this chapter. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25539. Implementation of article; duties of administering agency

The administering agency shall, in implementing this article, involve and cooperate with any local and state government officials, emergency planning councils, and professional associations concerning any actions regulating a local business. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25540. Violations of article; civil liability

(a) Any business that violates this article shall be civilly liable to the administering agency in an amount of not more than two thousand dollars (\$2,000) for each day in which the violation occurs. If the violation results in, or significantly contributes to, an emergency, including a fire, the business shall also be assessed the full cost of the county or city emergency response, as well as the cost of cleaning up and disposing of the hazardous materials.

(b) Any business that knowingly violates this article after reasonable notice of the violation shall be civilly liable to the administering agency in an amount not to exceed five thousand dollars (\$5,000) for each day in which the violation occurs. (*Added by Stats.1986, c. 1260, § 3.*)

§ 25541. False statements or representations in records or reports; punishment

Any person or business who knowingly makes any false statement or representation in any record, report, or other document filed, maintained, or used for the purpose of compliance with this article, or destroys, alters, or conceals any such record, report, or other document filed, maintained, or used for the purpose of compliance with this article, shall, upon conviction, be punished by a fine of not more than twenty-five thousand dollars (\$25,000) for each day of violation, or by imprisonment in the county jail for not more than one year, or by both the fine and the imprisonment.

If the conviction is for a violation committed after a first conviction under this section, the person shall be punished by a fine of not less than two thousand dollars (\$2,000) or more than fifty thousand dollars (\$50,000) per day of violation, or by imprisonment in the state prison for 16, 20, or 24 months or in the county jail for not more than one year, or both the fine and imprisonment.

Furthermore, if the violation results in, or significantly contributes to, an emergency, including a fire, to which the county or city is required to respond, the person shall also be assessed the full cost of the county or city emergency response, as well as the cost of cleaning up and disposing of the acutely hazardous materials. (*Added by Stats.1986, c. 1260, § 3.*)

K. ENVIRONMENTAL REVIEW

1. California Environmental Quality Act

The procedures for environmental review in California are delineated in the California Environmental Quality Act (CEQA) of 1970 which requires an Environmental Impact Report (EIR) to be prepared for projects to identify significant effects on the environment, to identify alternatives to the project and to indicate the manner in which such significant effects can be mitigated.

The project's characteristics are reviewed by the lead agency to determine if an EIR is required according to the criteria specified in the CEQA. The lead agency is defined as the agency responsible for permitting and reviewing the proposal. The project developer is responsible for demonstrating compliance with relevant environmental laws. Specifically, the proponent must consult with the lead agency about compliance with the CEQA found in the California Administrative Code.

When the developer submits an application to the lead agency according to local requirements, the agency will review the proposal and make a determination as to the potential environmental impacts. Three outcomes are possible:

1. a Negative Declaration - no significant environmental impacts
2. a Conditional Negative Declaration - impacts can be successfully mitigated and mitigation is incorporated as a condition of permit approval; or
3. a Requirement of an Environmental Impact Report- impacts are potentially significant.

The lead agency is required to develop the documentation to support the decision as to what type of environmental impacts are possible and whether preparation of an EIR is warranted. The EIR process, although not likely to be required for small projects, can be a long and expensive one. All the interested agencies must be contacted and given an opportunity to review and comment. Public hearings will also be necessary. Specific categorical exemptions from CEQA exist.

2. National Environmental Policy Act

If an application is located on federal land, or involves federal funding or a federal permit, then an Environmental Impact Statement (EIS) may be required according to the criteria of the National Environmental Policy Act (NEPA). In those cases when an EIS is required, a joint EIS/EIR is usually prepared. The joint EIS/EIR process may involve a "joint lead agency" designation, as well as joint preparation of the EIS/EIR document. Local governments can request that federal agencies review a project before determining what type of environmental review is appropriate. Claims that local or state government regulations do not apply to projects on federal land are resolved on a case-by-case basis.

III. SUMMARIES OF IMPORTANT COURT DECISIONS

A. UNITED STATES

1. Dalehite v. United States, 346 U.S. 15, 73 S.Ct. 956, 97 L.Ed. 1427 (1953)
DISCRETIONARY IMMUNITY

In 1947, as part of the foreign aid program, the United States government was involved in the production of fertilizer for export. The steamships Grandcamp and High Flyer were docked in Texas City, Texas each laden with over 1,000 tons of fertilizer which contained ammonium nitrate. In addition to fertilizer, the Grandcamp carried a large amount of explosives and the High Flyer carried 2,000 tons of sulfur. Early on April 15, 1947 a fire started in the hold of the Grandcamp, causing an explosion, killing all on board and igniting the High Flyer, which within a short time exploded too. A large part of the city was leveled. Many people died. Suit was brought against the government under the Federal Tort Claims Act.

The plaintiffs alleged that the government was negligent in adopting a general fertilizer export plan, in manufacturing the fertilizer, and in supervising the loading of the ship. There were 8,500 plaintiffs who brought claims totaling more than \$200 million.

In holding the government not liable, the court held that the activities of the government fell within the discretionary immunity. The discretionary immunity "...includes more than the initiation of programs and activities. It also includes determinations made by executives or administrators in establishing plans, specifications or schedules of operations. Where there is room for policy judgment and decision, there is discretion."

The court found that the governmental decisions of which plaintiffs complained were made "at a planning rather than operational level."

A dissenting opinion stated that where negligence occurs in carrying out and implementing a discretionary act, such negligence should not be immunized. This viewpoint has been recognized many times in subsequent years.

B. ALASKA

1. State v. Abbott, 498 P.2d 712 (Alaska 1972)
DISCRETIONARY IMMUNITY

While driving with her 13-year old daughter south along the Seward Highway, Mrs. Vogt lost control of her car on an ice-covered curve. The car skidded across the line and crashed into oncoming traffic. The daughter struck the windshield and received severe personal injuries. Suit was brought against the State of Alaska for negligence in its winter-time maintenance of the curve. The plaintiff alleged that the ice had become rutted and should have been eliminated and that inadequate amounts of sand was applied to the road. The State's maintenance manual required it to eliminate ruts prior to freezing and to keep sharp curves well sanded.

The trial court found for the plaintiff. The State defended the case in part by claiming that the discretionary function immunity covered its maintenance activities. The Court rejected the "semantic" definition of discretionary, a definition that would find "discretion" whenever a public decisionmaker has some range of legal choice. Instead, the Court adopted the rule that general policy level planning-type activities are discretionary whereas operational activities are not.

The Court determined that the original decision to maintain the State Highway through the winter by salting, sanding and plowing was discretionary and therefore immune. But "how" the decision should be carried out in terms of men and machinery is made at an operational level. The Court adopted the concept that the purposes of the discretionary function immunity are: (1) preservation of the separation of powers by limiting judicial inquiry into decisions of coordinate branches, (2) restraint of judicial inquiry into areas where it is unequipped to evaluate and balance the factors, which originally motivated the decision, and (3) prevention of enormous and unpredictable liability. None of their purposes would be served by applying the immunity in this case.

2. State v. I'Anson, 529 P.2d 188 (Alaska 1974)
DISCRETIONARY IMMUNITY

Plaintiff was a passenger in a car on an Alaskan freeway. The driver attempted to pass on the left of a vehicle which simultaneously attempted to execute a left turn into some campgrounds. Plaintiff suffered bodily injuries and sued the State for failing to paint no passing strips at the site of the accident and to post signs indicating the campground turn off/entrance. The questions of whether the stripping and/or a sign were necessary were sharply in dispute at the trial.

The trial court found in favor of the plaintiff. The State appealed asserting its decision on stripping and signage were within the discretionary function immunity. The Supreme Court upheld the decision. It held Abbott to be controlling, noting that judicial review of such issues neither eroded the separate powers of the coordinate branches of government nor was beyond the ability of the judiciary to review and evaluate.

3. Adams v. State, 555 P.2d 235 (Alaska 1976)
DISCRETIONARY IMMUNITY

In April 1969, State fire marshals inspected the Gold Rush Hotel and found several violations including a faulty fire alarm system, exposed wood framing, and storage of building materials which created a fire hazard. One inspector wired his supervisor that the building was "an extreme life hazard in that it fails to meet standards of the State Fire Code" and asked the supervisor to come to the location as soon as possible. No action was taken by the State even after the hotel manager reminded the inspector in May 1969 that he was supposed to receive a formal letter detailing corrective measures. In January 1970, a fire occurred injuring several and killing five. State statutes and regulations imposed obligations on the staff to conduct fire inspections and to "order the dangerous conditions...removed or remedied in such manner as may be specified by the State Fire Marshal." Moreover, the regulations required the posting of a notice that the unsafe building should not be entered. The survivors and plaintiff on behalf of those killed sued the State.

The trial court granted summary motion in favor of the State. The plaintiffs appealed. The Supreme Court held the discretionary immunity inapplicable, saying that:

"In this case, the discretionary act could be described as the decision to inspect the [hotel]; the negligent performance of that inspection would then be an operational or ministerial act, and thus not immune."

Next, the State defended by saying that it had no "affirmative duty" (no legal relationship requiring it to prevent injury) to the occupants of the hotel. The court rejected this argument by relying on the "undertaking doctrine." Even where no affirmative duty exists, if the government undertakes to render aid or rescue persons from peril and thereby increases their risk of harm or causes them to rely on the government and forego their own self-protective efforts, then the government is liable for its negligence in carrying out the undertaking.

The court also rejected the argument that the public duty doctrine should be adopted in Alaska.

4. Jennings v. State, 566 P.2d 1304 (Alaska 1977)
DISCRETIONARY IMMUNITY

A seven-year old attended school in Fairbanks. The school is located on Joy Street at "a considerable distance" from its intersection with College Road. The State had received numerous complaints and requests regarding the hazard of children crossing College Road which is a four-lane highway with a posted speed limit of 30 mph. The child was killed while trying to cross College Road at a point three blocks away from the Joy Street and College Road intersection. The plaintiffs sued alleging negligence by the State in failing to take effective measures such as building an overpass, lowering the speed limit or installing traffic control devices along College Road.

The trial court granted summary judgment to the State on the basis that the action was within the discretionary function immunity. Given the location of the accident in relationship to the school, any action which the State could have taken to mitigate the hazard would have required broad policy decisions rather than operational ones.

5. Carlson v. State, 598 P.2d 969 (Alaska 1979)
DISCRETIONARY IMMUNITY--DESIGN

The Carlsons, and others, routinely used a state-owned, designed and built highway turnout as a parking place for their vehicles in order to board a bus which stopped nearby. The State was aware of this use. The area included lidless litter drums. On October 22, 1975, Julie Carlson suffered bodily injury while returning to her parked vehicle when a bear attacked her. On that evening the litter drums had overflowed and garbage had been strewn in a fifty foot area. The State contracted for litter removal at the site only until October 1 of each year and apparently had no litter pickup program of its own after that date. The Carlsons sued the State alleging negligence

(1) in not removing the litter and attracting bears which posed a danger to known users of the turnout, (2) in failing to warn users of the danger, or (3) not taking other means to protect users.

The trial court granted summary judgment based on the fact that the cessation of the litter pickup program on October 1 was an established practice and the decision underlying that practice was within the discretionary function immunity. The Supreme Court characterized the initial decision on whether to maintain turnouts in the winter at all as immune. However, decisions on how or when to cease the program merely implemented the policy decision. Therefore, the case was remanded to the lower court for a trial on the merits.

6. Japan Air Lines Company, Ltd. v. State, 628 P.2d 934 (Alaska 1981)
DISCRETIONARY IMMUNITY

The State of Alaska employed engineers to design an airport taxiway at Anchorage International Airport to accommodate wide-bodied jets. As designed and constructed, the taxiway is 25 feet narrower than the then current FAA standards for runways accommodating wide-bodied jets. The state and the engineers knew that the taxiway would be used by wide-bodied jets. Further, under ICAO standards the taxiway was alleged to be deficient in failing to provide 35 foot shoulders and a 220 foot taxiway safety area. A Japan Air Lines (JAL) Boeing 747 was damaged. JAL sued for \$2,000,000 for repair of the aircraft.

The trial court granted summary judgment to the State based on its conclusion that the runway design required consideration of "the impact on surrounding airports, meteorological conditions, and available funds." The court characterized these considerations as "broad policy decisions meant to be immune from liability."

Reversing the trial court and citing its previous decision in I'Anson, the Alaska Supreme Court affirmed that the state may be held liable for injuries which result from negligent design. The issue in determining, whether a specific design decision should be immune under the discretionary function of immunity, is whether the decision "involved a basic policy formulation which under separation of powers concepts, should be immune to judicial review." The court concluded that the "taxiway plans by the state's engineers were operational decisions which merely implemented the basic policy decision to build a taxiway suitable for use by wide-bodied jets."

The court in JAL seemed to place particular value on the analogous fact situation in I'Anson which was a negligent highway design case.

7. Wainscott v. State, 642 P.2d 1355 (Alaska 1982)
DISCRETIONARY IMMUNITY

The plaintiff's son died in a vehicular accident at an intersection equipped with a flashing red and yellow traffic control device. The plaintiff sought damages for the wrongful death of the victim claiming that the state was negligent in failing to install a sequential red, amber, and green traffic signal at the accident site.

During the trial, the state submitted evidence showing how the Alaska Department of Transportation arrived at the decision to install the traffic control device which was at the intersection. The Department considered the following: disruption of traffic flow, potential traffic hazards from a sequential traffic signal (red, amber and green), potential obsolescence of the sequential traffic signal due to state plans to build an overpass, and the low priority of the intersection compared with safety problems in other locations.

The Supreme Court reviewed the criteria used to evaluate the priority of installing a sequential traffic control device at the accident site. It concluded that the factors which went into the state's ultimate decision not to install such a device was one which required policy judgment. In particular, the court singled out the facts that the decision involved the allocation of limited funds and the interaction of long term planning decisions regarding traffic patterns as being critical to its conclusion.

8. Industrial Indemnity Corporation v. State, 669 P.2d 561 (Alaska 1983)
DISCRETIONARY IMMUNITY

The State of Alaska's preliminary highway guardrail project included some guardrails which were eventually eliminated from the final project, apparently due to funding constraints. One of the guardrails which was eliminated was at mile 86.4 of Glenn Highway. Project officials agreed that the originally proposed guardrail at mile 86.4 of Glenn Highway was appropriate. On January 2, 1977, a private sector employee died when his vehicle left the road at mile 86.4 of Glenn Highway. The plaintiff, which was the worker's compensation insurer, paid benefits to the decedent's wife and then sued the State of Alaska for negligence in failing to install a guardrail at the accident site.

At the trial, the State was granted summary judgment. Citing Wainscott, the appeals court relied heavily on the evidence produced by the State Department of Transportation that decisions to install guardrails at any particular location, including the one at mile 86.4 of Glenn Highway, depended on the allocation of funds between competing highway projects. The court also noted that there was nothing unique about the accident site which would distinguish it from sites competing for the installation of guardrails.

In dicta, the court commented on the plaintiff's assertion that a state commissioned engineering study (to determine where the installation of guardrails on state highways would be "appropriate") imposed an affirmative duty on the state to erect guardrails where such study determined it was appropriate. Plaintiff then asserted that the further decision to build guardrails at some sites and not others was operational, implementing the general policy of the guardrail project. Consequently, the plaintiff argued, to avail itself of the discretionary function of immunity, the state must be able to prove that policy level decision-making occurred with respect to each siting of guardrail projects. The court rejected the affirmative duty action as untenable and overbroad. It noted that once a decision is shown to require policy/planning discretion, the governmental defendant is not required to show that the decision maker actually weighed policy level considerations.

9. Johnson v. State, 636 P.2d 47 (Alaska 1981)
DISCRETIONARY IMMUNITY-DESIGN

Phillips Field Road was originally designed and constructed by the Alaska Railroad. The road included an spur track designed and constructed to intersect with the road at a sheer angle of 76 degrees. The City of Fairbanks purchased the crossing with the spur track to transport coal. The City and the State had joint maintenance responsibility for the road. The City with the State's design approval reconstructed the crossing without altering the manner in which the track intersected the roadway. The plaintiff was bicycling along the roadway and suffered bodily injury when thrown from his bicycle, allegedly as a result of the severe angle at which the track/roadway intersection occurs and the failure to maintain the roadway in a manner which prevents a bicycle tire from being caught between a railroad track and the road. The plaintiff sued the State and the City for, among other causes of action, negligent design and maintenance of the crossing.

At trial, the defendants moved for summary judgment on the grounds that the design of the crossing fell within their discretionary function immunity. The motion was denied.

The court cited other design cases (I'Anson, JAL and Jennings) to support its position that there is no "blanket design immunity" in Alaska. In this particular case, the mere fact that the decision to continue the existence of the crossing and the road was made simultaneously with the design of the reconstruction did not create an exception to the rule.

On appeal, the defendants urged the Supreme Court to adopt the equivalent of California's changed condition design immunity as enunciated in Baldwin v. State, 6 Cal. 3d, 424, 99 Cal.Rptr. 145 (1975). In particular, the State argued that the original decisions to acquire the crossing and to continue its original use and design were made simultaneously and were based on policy considerations, citing JAL and Jennings. Until the City/State receives notice of a changed condition rendering the original design a dangerous condition, discretionary function immunity ought apply. The court rejected this argument.

10. State of Alaska for Use of Smith v. Tyonek Timber, Inc., 680 P.2d 1148 (Alaska 1984)

RECOVERY OF PURELY ECONOMIC DAMAGES

In 1976, H & S Construction, Inc. (H & S) acted as general contractor to build an addition to a school house. Smith was a concrete subcontractor to H & S. Tyonek Timber, Inc. (Tyonek) supplied defective concrete to the project. Smith used the Tyonek concrete and incurred additional costs in performing remedial work necessitated by the defective concrete. Smith alleged Tyonek was negligent in furnishing unfit concrete and that H & S was negligent in failing to adequately inspect the defective concrete. Smith sought recovery of costs in performing the remedial work.

At trial, the jury allocated damages in a tort cause of action among H & S, Tyonek and Smith. The trial court granted Tyonek's motion for a directed verdict relieving it of liability to Smith on the grounds that there was no contractual obligation between Smith and Tyonek and that there was no basis for tort recovery.

Citing Seely v. White Motor Co., 63 Cal. 2d 9, 403 P.2d 145 45 Cal. Rptr. 17 (1965), the court rejected the plaintiff's argument that it ought to be allowed to recover purely economic harm under a tort cause of action.

The exception to the general rule enunciated in Biankanja v. Irving, 49 Cal. 2nd 647, 320 P.2d 16 (1958) is inapplicable. Smith did not show that it was an intended beneficiary of the contract between H & S and Tyonek, except in an inconsequential way.

11. Mattingly v. the Sheldon Jackson College, 743 P.2d 356 (Alaska 1987)
RECOVERY OF PURELY ECONOMIC DAMAGES

Sheldon Jackson College (College) excavated and braced a trench exposing a drain pipe. The College contracted with the plaintiff Mattingly to clean the drain pipe. Mattingly sent three employees to do the work. The trench collapsed causing physical and emotional harm to the employees. The plaintiff claimed, among more traditional tort damages, the following: the temporary loss of services of two employees and the permanent loss of services of the third, consequential economic losses by way of lost business, damage to his business reputation and income, and incurred business expenses for medical care and treatment of employees.

At trial, the court ruled against the plaintiff finding no authority in Alaskan law permitting recovery based on negligent interference with contractual expectation or relation.

Relying on People Express Airlines, Inc. v. Consolidated Rail Corp., 100 NJ 246, 495 A.2d 105 (1985), the Supreme Court held that a defendant "owes a duty of care to take reasonable measures to avoid the risk of causing economic damages...to particular plaintiffs or plaintiffs comprising an identifiable class with respect to whom defendant knows, or has reason to know, are likely to suffer such damages from his conduct. The defendant failing to adhere to this duty of care may be found liable for such economic damages approximately caused by his breach of duty."

In adopting this rule, the court sought to advance the social policy of allowing redress to innocent victims. The traditional argument that the recovery of purely economic damages in tort would be overly expansive is limited by the tort requirements that the injured party must be one who is particularly foreseeable and that the damages were "proximately caused" by the defendant's actions. The court stressed "that members of the general public or invitees such as sales and service persons at a particular plaintiff's business premises, or persons traveling on a highway near the scene of a negligently-caused accident...who are delayed in the conduct of their affairs and suffer varied economic losses, are certainly a foreseeable class of plaintiffs. Yet, their presence within the area would be fortuitous and the particular type of economic injury that could be suffered by such persons would be hopelessly unpredictable and not realistically foreseeable...an identifiable class of plaintiffs must be particularly foreseeable in terms of the type of persons or entities comprising the class, the certainty or predictability of their presence, the approximate numbers of those in the class, as well as the type of economic expectations disrupted." The court held that the employees engaged in cleaning the drain pipe met these criteria.

C. CALIFORNIA

1. Johnson v. State, 69 Cal.2d 782, 447 P.2d 352, 73 Cal.Rptr. 240 (1968)
DISCRETIONARY IMMUNITY

A parole officer for the California Youth Authority placed a 16-year old boy in the foster home of Mr. and Mrs. Johnson. The officer failed to notify the foster parents that the boy had "homicidal tendencies and a background of violence and cruelty towards both animals and humans." Five days later the boy assaulted and injured Mrs. Johnson. Mrs. Johnson sued the State for negligence.

The State defended in part by claiming that the decision not to warn the Johnsons of the boy's tendencies was immune as "discretionary."

The court rejected a literal interpretation of "discretionary" stating that

"It would be difficult to conceive of any official act, no matter how directly ministerial, that did not admit to some discretion in the manner of its performance, even if it only involved the driving of a nail."

The court stated that it was difficult to distinguish between the "immune discretionary decision and the unprotected ministerial act..." The line should be drawn between planning and operational levels of decision making.

The decision to parole the youth was immune but, after it was decided that the youth was to be placed with a particular family, the decision as to what information should be divulged was not immune. The court stated that

"...although a basic policy decision...may be discretionary...subsequent ministerial actions in the implementation of the basic decision must still face case-by-case adjudication on the question of negligence."

The Johnson opinion is supportive of the Federal idea that the office of the decision maker may influence the "discretionary" nature of his decision. It also notes that in order to qualify for the "discretionary" immunity, the government must show that the decision maker actually took into account the relevant risks and benefits in reaching his decision.

2. Connelly v. State, 3 Cal. App. 3d 744, 84 Cal.Rptr. 257 (1970)
AFFIRMATIVE DUTY -- PREDICTION

Mr. Connelly was the owner of several marinas in the Sacramento River which were damaged because of unusually heavy rains and high waters in December of 1964. Connelly alleged that a forecast for the Sacramento River released to the public by the State Department of Water Resources had been flawed by a negligent breakdown in the collection of information. On December 22, 1964 he was informed that the maximum height of the river would be 24 feet. Connelly adjusted his docks to rise to 26 feet but the river rose to 29 feet and remained at that height for 2 weeks. Connelly alleged that he personally telephoned a Department of Water Resources office to secure the forecast and identified himself as a businessman who had a particular economic interest in the forecast. He sued the State of California for his damages.

The court held that Connelly's suit was proper.

The State argued that it was not reasonable for Connelly to depend on the accuracy of the weather forecast because it is common knowledge that weather predictions are not statements of fact. While it acknowledged that this was true, the court stated that Connelly was not alleging negligence because the forecast was wrong but because it was negligently prepared.

The State also argued that its acts were immunized from liability by the discretionary immunity. Relying on Johnson v. State of California, the court stated that:

"The determination to issue flood forecasts is a policy-making function, a discretionary activity within the scope of governmental immunity, while gathering, evaluation and disseminating flood forecast information are administrative and ministerial activities outside the scope of governmental immunity. Consequently, the question whether these unprotected acts were performed negligently must be determined from the facts of the case."

Finally, the State claimed that it was not liable because of the immunity for negligent misrepresentations provided by Government Code Section 818.8. The court, again relying on Johnson noted that the misrepresentation immunity only applied to "interferences with financial or commercial interest." It stated that Connelly's loss was not the result of a "commercial transaction between him and the State, nor from the State's interference with his commercial transactions."

3. Mann v. State, 70 Cal.App.3rd 773, 139 Cal.Rptr. 82 (1977)
AFFIRMATIVE DUTY

A California highway patrol officer observed two cars stranded in the speed change lane of the freeway. The officer stopped his marked patrol car behind the two stalled vehicles. A few minutes later a tow truck operator appeared at the scene. The officer left the scene without advising the motorists surrounding the stalled vehicles to go back into their cars, without placing any protective flares around the stranded vehicles, without waiting for the tow truck to assume a protective position behind the stalled vehicles and without informing the motorists that he was leaving. In so doing, the officer apparently violated several guidelines of the California Highway Patrol. A few minutes later, another vehicle sideswiped one of the two cars and struck several of the motorists surrounding the cars.

At trial, the court granted a motion for a directed verdict in favor of the State finding that the third vehicle was the sole cause of the harm suffered by the plaintiffs.

The State first claimed that the officer's actions were "discretionary" and therefore protected under the California's statutory discretionary function immunity (Government Code 820.2). The court ruled that although the initial decision to investigate or to not investigate a particular highway incident is discretionary, once the decision is made to investigate a negligence during the investigation is not protected as a discretionary act. Second, the court found that the statutory immunity of the State from the failure to provide police protection was a protection against crime fighting activities, not against vehicular accidents. Moreover, the thrust of the officer's failure was not in the lack or sufficiency of providing protection but rather negligence in the performance of his duties.

Finally, the court notes that the officer's actions did not directly cause the harm to the plaintiffs. Rather, the plaintiffs actually assert a claim against the State based on an affirmative duty between the officer and the injured parties. The court found that it could have been proven at trial that the injured parties did rely on the expertise of the officer in traffic safety and further could have found that direct right contact between the officer and specific individuals could have given rise to "a special relationship" upon which an affirmative duty can be based.

4. Williams v. State, 34 Cal. 3d 18 664 P.2d 137, 192 Cal.Rptr. 233 (1983)
AFFIRMATIVE DUTY

Della Williams was injured when a piece of a heated brake drum from a passing truck entered her automobile. The police officers who arrived on the scene assumed the responsibility of investigating the accident; however, they failed to secure witnesses or attempting to investigate the operator of the truck, needed by Williams to obtain compensation for her injuries. The sTate was sued on the premise that an officer who comes to the aid of an injured or stranded motorist creates an affirmative duty to secure or preserve information for civil litigation between the injured motorist and and third parties.

The court refused to find that the officers' actions created an affirmative duty, finding that:

"The officers did not create the peril in which plaintiff found herself; they took no affirmative action which contributed to, increased, or changed the risk which would have otherwise existed; there is no indication that they voluntarily assumed any responsibility to protect plaintiff's prospects for recovery by civil litigation; and there are no allegations of the requisite factors to a finding of special relationship, namely, detrimental reliance by the plaintiff on the officers' conduct, or statements made by them which induced a false sense of security and thereby worsened her position."

A dissenting opinion found that a special relationship clearly exists in situations where a highway officer stops to give aid to a disabled motorist.

5. Morris v. Marin County, 18 Cal.3d 901, 559 P.2d 606, 136 Cal.Rptr. 251 (1977)
MANDATORY DUTY

Morris, a construction worker, was injured and became a permanent paraplegic as a result of a fall while working on a construction project in Marin County. His employer did not have Workers' Compensation Insurance. Morris sued Marin County, claiming that it should be liable for failure to comply with Labor Code Section 3800 which states that if a County requires a building permit prior to construction, the County "shall require" that each permit applicant carry Workers' Compensation Insurance.

Morris alleged that the responsibility to require Workers' Compensation Insurance was a mandatory duty on the County under Government Code Section 815.6, which provides that

"Where a public entity is under a mandatory duty imposed by an enactment that is designed to protect against the risk of a particular kind of injury, the public entity is liable for an injury of that kind proximately caused by its failure to discharge the duty unless the public entity establishes that it exercised reasonable diligence to discharge its duty."

One defense was that the County should not be liable because the law provides specific immunities for injuries resulting from issuance of permits or from failure to enforce a law.

The court disagreed. It stated that these immunities do not protect against liability for failure to perform a mandatory duty which the County could not, in its discretion, ignore. Thus, because the County was required to withhold (had no discretion to grant) the permit absent Workers' Compensation Insurance, the mandatory duty rule overrode the immunities for permit issuance and failure to enforce the law.

6. Shelton v. City of Westminster, 138 Cal.App.3rd 610, 188 Cal.Rptr. 205 (1982)
MANDATORY DUTY

Mark Shelton was found missing on August 4, 1979. His parents filed a missing person's report with the Westminster Police Department on October 6, 1979. A body later identified as Mark Shelton was found on August 11, 1979 and remained unidentified until April 1, 1980. At the time the missing person's report was filed, the Westminster Police Department failed to provide the parents with a form authorizing release of Mark Shelton's dental records. The parents filed suit against the City alleging that Penal Code Section 11114 required the police department to supply them with the dental records release form and such the failure caused them to expend monies investigating the disappearance of their son and emotional distress and related damages.

On the defendant's motion, the trial court dismissed the complaint. The appeals court reviewed the legislative history of Penal Code Section 11114 and concluded that it had been enacted "to aid the coroner in identifying bodies in the criminal investigation of a death." The statute may incidentally benefit friends and relatives of the decedent by incidentally aiding in the identification process. However, the harm suffered by the plaintiffs was not of the type which the enactment was "intended to prevent." The trial court's dismissal was sustained.

7. Nunn v. State, 35 Cal. 3d 616, 677 P.2d 846, 200 Cal.Rptr. 440 (1984)
MANDATORY DUTY

In 1974, the State Legislature enacted the Business and Professions Code Section 7514.1 which provided that a private patrol guard must possess a license to carry or use a firearm. The Department of Consumer Affairs was charged with the responsibility of implementing a licensing program and prescribing minimum standards for a course of training to qualify for the license. The statute provided that after January 1, 1976 no private patrol guard may carry a firearm unless licensed. On January 8, 1976, Jethro G. Nunn was employed as an unarmed security guard and was fatally shot while patrolling a manufacturing plant. At the time, the Department of Consumer Affairs had not yet promulgated regulations governing a course of instruction in firearms for licensing purposes. The estate for the decedent sued the State alleging negligence in its failure to timely promulgate the regulations which failure forced the decedent to perform his job without the protection of a firearm and placed him in a "dangerous condition."

The trial court granted the State's motion for a judgment on the pleadings.

On appeal, the court considered the plaintiff's contention that the regulatory scheme envisioned by Business and Professions Code Section 7514.1 required the Department of Consumer Affairs to promulgate regulations in a timely manner so as to afford private security guards a reasonable opportunity to complete firearms training prior to the January 1, 1976 date on which all security guards, not so trained and licensed, would be precluded from carrying or using their firearms. On examination of the legislative history, the court concluded that the legislative history did not support the plaintiff's contention. Moreover, even if a "mandatory duty" was found, the harm which was suffered by the decedent was not of the type against which the statute was designed to protect. The purpose of the statute was to protect the general public from the danger of incompetent armed private security guards. There may be some incidental benefits to the guards but not sufficient to support the complaint.

8. Winmar v. City of Marysville, (unreported trial court decision -- included for illustrative purposes only)
MANDATORY DUTY

In the Marysville fire of July 24, 1974, Arthur Winmar received third-degree burns over 30% of his body, some fourth-degree burns involving muscle tissue and bone structure, and some cosmetic injuries to his chest that required extensive plastic surgery. Mr. Winmar was a tenant in an apartment building with two unenclosed stairwells. The fire had broken out during his sleep, traveled up the unenclosed stairwells, and cut off his avenues of escape. There was no fire extinguisher in the building, no fire alarm system, and the fire hose located on the 3rd floor of the apartment building had burst when the water was turned on. The City of Marysville Fire Department had inspected the building on a more or less regular basis, at least annually, for 20 years prior to the subject fire and was well aware of the hazards that prevented Mr. Winmar from escaping.

The trial court gave judgment in favor of Mr. Winmar in the sum of several hundred thousand dollars based upon the City of Marysville's failure to perform a mandatory duty and its failure to warn the owners, occupants and managers of the building.

The Court found that the City of Marysville had adopted the 1971 Uniform Fire Code and the 1970 Uniform Building Code, including Appendix I, which made the building code applicable to existing buildings. These codes had requirements concerning stairwell enclosures, self-closing doors, fire walls, fire escapes and the like. The building code gave the City authority after due notice to declare substandard structures a nuisance and order them vacated.

The court, in holding for liability, rested its decision in part upon the case of Morris v. Marin County, holding that there would be no liability for the City if it failed to inspect or negligently inspected the apartment, but that liability existed because once the City had undertaken to inspect and knew of the substandard conditions, it had a duty to enforce the building code.

The court also held that the City had duty to warn. This duty would not have arisen if the City had not become involved by inspecting the property. However, once the City inspected and had knowledge of the potential risk to victims, the court held that the City was responsible.

9. Cardenas v. Turlock Irrigation District, 267 Cal. App. 2d 352, 73 Cal.Rptr. 69 (1968)

DANGEROUS CONDITION OF PUBLIC PROPERTY

The Cardenas family, with their two small boys ages 6 and 8, lived a block and a half from a branch of a canal maintained by the Turlock Irrigation District. The canal branch, which passed through a residential area of Modesto, represented 9 miles of the 250 miles of the District's canals, all of which were unfenced. The District knew that children of all ages swam regularly in the canal even though "no swimming" and "no trespassing" signs were posted by the District. The Cardenas boys had been warned repeatedly by their parents about the canals. However, early one evening during a period of unsupervised play, the Cardenas boys wandered to the canal and lost their lives by drowning. The parents brought a wrongful death suit against the District, alleging the negligent failure of the District to fence the canal.

In finding the District had no liability, the Court relied in part on Government Code Section 835.4 which states that a public entity will not be liable for injury caused by dangerous condition of its property if the public entity behaved reasonably in either creating the condition or in protecting against the risk of injury posed by the condition. Under Section 835.4, reasonableness is determined in part by

"...weighing the probability and gravity of potential injury to persons exposed to the risk of injury against the practicability and cost of taking alternative action that would not create the risk of injury or of protecting against the risk of injury."

The Appellate Court endorsed the application of Section 835.4, stating

"...after considering such factors as the cost and practicability of fencing or undergrounding respondent's (the District's) canals, respondent's ability to assume such costs, the public necessity involved in respondent's function of transporting irrigation water, the extent of the danger of injury to others, and the effectiveness of fencing to keep children out of the respondent's canals, the trial judge found that respondent's failure to fence the canal or to take other protective measures to protect small children was reasonable under all of the circumstances. We cannot hold that the trial judge was wrong as a matter of law."

10. Jordan v. City of Long Beach, 17 Cal. App. 3d 878, 95 Cal.Rptr. 246 (1971)
DANGEROUS CONDITION OF PUBLIC PROPERTY

On December 15, 1968, Lessie V. Jordan, after alighting from an automobile driven by her daughter, stepped in a hole in the paving and tripped over a protruding pipe. In her fall she sustained personal injuries. The hole in the paving and the protruding water pipe which caused the fall were located on private property immediately adjacent to city-owned property. Jordan sued the City of Long Beach for maintaining a dangerous condition to public property.

The court held that while a public entity cannot be held liable for dangerous conditions of "adjacent property," the public entity's own property may be considered dangerous if "a condition on the adjacent property exposes those using the public property to a substantial risk of injury."

The court determined that Jordan should be allowed to sue the City of Long Beach. The court stated that the test for determining liability was whether the condition of private property

"...created a substantial risk of harm to persons generally who would use the public property with due care in a foreseeable manner."

11. Fredette v. City of Long Beach, 187 Cal. App. 3d 122, 231 Cal. Rptr. 598 (1986)

DANGEROUS CONDITION OF PUBLIC PROPERTY

The City of Long Beach undertook the task of rebuilding a pier. As the work progressed, A-frame barricades were occasionally placed at the foot of the stair leading to the pier for the purpose of dissuading the public from entering the site. The lagoon itself was, however, accessible. When work on the structure was substantially complete, all the barricades were removed and the portion of the pier extending over the water remained open-ended. The plaintiff was injured after diving from the pier into the lagoon. Plaintiff brought suit to recover damages for personal injuries alleging dangerous condition of public property.

The court first stated that a Plaintiff is required to show that "the condition was one that created a hazard to a person who foreseeably would use the property or adjacent property with due care." The court went on to find that if the property is safe when used with due care, then the property is not dangerous within the meaning of Government Code Section 830(a). Further more, there is "no failure to warn" if the property is not in a dangerous condition in the first place. "Even if it is foreseeable that persons may use public property without due care, a public entity may not be held liable for failing to take precautions to protect such persons." The court concluded that "the danger, if present at all, had to be obvious to anyone using the pier."

12. Baldwin v. State, 6 Cal.3d 424, 491 P.2d 1121 99 Cal.Rptr. 145 (1972)
DESIGN IMMUNITY

A Mr. Baldwin was driving his pickup truck north on Hoffman Blvd. and stopped in the fast lane to make a left-hand turn onto Central Avenue. While he was waiting for oncoming traffic to clear, he was rear-ended and thrown into a head-on collision. He suffered serious personal injuries. He sued the State for maintaining a dangerous condition of public property because there was no separate left-turn lane. Baldwin was able to show the State knew that (1) the intersection, had been the site of many collisions, and (2) the traffic volume in the 25 years since the intersection had been constructed had increased greatly.

The State defended the case on the basis of the design immunity which immunizes against liability for injuries caused by the design of an improvement to public property if:

- (1) the legislative body of the public entity or some other body or employee exercising discretionary authority approved the design in advance; and
- (2) there is substantial evidence supporting the reasonableness of the design decision.

The court held that even if the original design decision is protected by the design immunity, subsequent changed conditions demonstrating a substantial danger in the design feature may render the design immunity inapplicable. The court stated that

"Having approved the plan or design, the public entity may not, ostrich-like, hide its head in the blueprints, blithely ignoring the actual operation of the plan. Once the entity has noticed that the plan or design, under changed physical conditions, has produced a dangerous condition of public property, it must act reasonably to correct or alleviate the hazard."

13. Cameron v. State, 7 Cal.3d 318, 497 P.2d 777, 102 Cal.Rptr. 305 (1972)
DESIGN IMMUNITY

Miss Cameron and Mr. Tickle, both minors, were passengers in a car driven on Highway 9 in Santa Cruz County. As it entered an S-curve south of Waterman's gap, the car went out of control, skidded over 100 feet, and slammed into a hillside. Both received personal injuries. Cameron and Tickle sued the State for negligence, claiming that the road was incorrectly banked and in a dangerous condition of which the State should have given warning.

The State defended the suit on the basis of the design immunity. There was no showing, however, that the Santa Cruz County Board of Supervisors, in approving the design of the S-curve, had ever considered its banking.

The court held that the design immunity is applicable only if the particular design feature alleged to have caused the injury was actually considered in some reasonably explicit way in approving the design. The court secondly held that even where the State is immune from liability for injuries caused by dangerous conditions of its property because of design immunity, the State may nevertheless be liable for its negligent failure to warn of the dangerous condition.

14. Barnhouse v. City of Pinole, 133 Cal. App. 3d 171, 183 Cal.Rptr. 881 (1982)
DESIGN IMMUNITY

In 1956, the state built an east-west freeway through unimproved land north of what later became Barnhouse's property. The plans included a relocation of a natural streambed onto PG&E's property immediately to the south. A developer, after conducting tests, found springs and slides on property just north of what would become the Barnhouse lot. The developer installed a storm drain system which was accepted by the city. The Barnhouses purchased their home from the developer aware that the house was on fill. After slides damaged their property both in 1962 and in 1974, the Barnhouses sued the city under a theory of nuisance.

The court, in reversing the summary judgement for the City with respect to the nuisance claim, stated that to be immune from a nuisance claim the public improvement had to meet the following criteria: (1) that there was advanced approval of design with the previously approved standards, and (2) that there was substantial evidence on the basis of which a reasonable governmental entity could have adopted or approved the design.

The court also stated that even if the original drainage system was immune to a nuisance claim, other conduct by the city or state, such as negligent maintenance or negligent failure to redesign the improvement in light of changed conditions, could render governmental agencies liable.

15. Yee v. Sausalito, 141 Cal. App. 3d 917, 190 Cal.Rptr. 595 (1983)
INVERSE CONDEMNATION

Suit was brought against the city for inverse condemnation on the allegation that a storm drain system ruptured, allowing surface water to seep into subsurface soil adjacent to plaintiff's property and causing massive soil subsidence of his land. Plaintiff sued the City for inverse condemnation.

The City asserted that the plaintiff's claims stated a general tort cause of action for negligent maintenance because the plaintiff had stated that the gutter was not functioning as deliberately planned or constructed and that it was a defect which proximately caused in the seepage of water.

Plaintiff argued that "the fact that the rupture was not designed or constructed to permit this occurrence is irrelevant when the purpose of the improvement is to prevent the very events and condition of which plaintiff complains."

The court stated the general principle that "inverse condemnation is the remedy only for such injury to private property as results from a deliberate act carrying with it the purpose of fulfilling one or another of the public objects of the project as a whole." Thus the court found that "the focus of judicial inquiry is not whether the injury was expected or foreseeable, but whether that injury was proximately caused by the use of the public improvement for its intended public purpose."

The court went on to find the City liable because "the public purpose served by the gutter was to collect and convey surface water away from the surrounding residences. The injury occurred while the improvement was operating as intended. There was no evidence that the injury occurred as a result of the use of the improvement for some purpose unrelated to storm drainage, example, as a catch basin for the accumulation of debris."

16. Rose v. City of Coalinga, 190 Cal.App.3rd 1627, 236 Cal.Rptr. 124 (1987)
INVERSE CONDEMNATION

In 1983, the City suffered an earthquake which caused substantial physical damage to downtown buildings. The City notified the owners of these buildings, including the Roses that the majority of these buildings would have to be demolished. The Rose's architect and engineer advised them that their building could be economically repaired. The architect's report was given to the City. The State Office of Emergency Services Structural Safety Report found no structural hazard in the building. The building was demolished almost two months after the earthquake. The Roses filed a suit based on inverse condemnation against the City.

The trial court granted the City's motion for a summary judgment.

On appeal, the court acknowledged that public agencies have the power to damage or to destroy private property without paying compensation in emergency situations. However, the power can only be exercised in circumstances which make the damage or destruction necessary. The public entity will be liable in inverse condemnation if it cannot prove that the circumstances justified its actions. The court held that the City of Coalinga must return to the trial court to prove that the circumstances warranted the destruction of the Rose's building. (The case was settled out of court.)

17. Cochran v. Herzog Engraving Co., 155 Cal.App.3rd 405, 205 Cal.Rptr. 1 (1984)
INSPECTION OF PRIVATE PROPERTY

In 1975, a representative of Herzog Engraving Company contacted the City of San Mateo Fire Department and informed the Fire Marshal that the company was moving into new premises and made references to the company's processing of magnesium at the new site. There is no record of a recommendation made by the Fire Marshal regarding magnesium. In 1977, inspection of the property by the Fire Department notes the presence of magnesium. Again, there is no record of any recommendation regarding it. A subsequent report in 1978 does not note the presence of magnesium or any other hazardous substance. Bonnie L. Cochran was working at the company when a fire broke out and she died in the fire. The decedent's husband and parents brought suit against Herzog Engraving Company and the City for damages based on negligence.

The trial court granted the City's motion for a summary judgment based on the City's immunity under Government Code Sections 8.6, 850, 850.2 and 850.4.

On appeal, the plaintiffs alleged that the City was under a mandatory duty to inspect Herzog's premises with due care and to require safeguards relating to magnesium and other fire-related safety measures. The plaintiffs provided no citation of authority for its position. Without formally ruling on the allegations regarding the City's mandatory duty, the court ruled that the City's statutory immunity under Government Code Section 818.6 grants absolute immunity from liability for any "negligent inspection" of private property regardless of whether the duty to inspect is "mandatory" or "discretionary."

In reaching this conclusion, the court noted that for the immunity to apply, the allegedly negligent act must have been part and parcel of the inspection or have had a direct proximate effect on it. Negligent acts and omissions (not otherwise protected by a statutory immunity) that coincidentally occurred during the inspection but which did not effect the results or goals of the inspection itself would not be immune under California Government Code 818.6. In affirming the continued application of the inspection immunity to even those instances where there is allegedly a mandatory duty, the court cites as policy support for its position the resulting "unwarranted and unsupportable risk of liability" which would otherwise result.

18. Barenfield v. City of Los Angeles, 162 Cal.App. 3d 1035, 209 Cal.Rptr. 8 (1984)
POLICE POWERS

The City enacted a local ordinance which required the owners of all buildings constructed prior to October 6, 1933 which have unreinforced masonry bearing walls (with exceptions not applicable to this case) to take remedial actions designed to reduce earthquake-related hazard. Each of the plaintiffs owns one or more buildings subject to the ordinance. Each of them received an order from the City requiring them to (1) perform seismic retrofitting of the building(s), or (2) submit a structural engineering analysis indicating that the building meets the ordinance standards, or (3) install temporary safeguard so as to qualify for an extension of time to comply with (1), or (4) demolish the building. Plaintiffs sued claiming the ordinance constitutes an unconstitutional taking of private property without compensation.

The trial court granted the City's motion for summary judgment.

In support of its motion, the City proffered evidence that unreinforced masonry buildings pose a safety threat to the public and that the ordinance bore a reasonable relationship to the objective of making the public more safe from this hazard. The plaintiff proffered evidence questioning whether the ordinance's provisions had a reasonable relationship to increased safety. The appellate court noted that the issue of the reasonableness of the ordinance's provisions were brought into question by the plaintiff's evidence. However, as a challenge to the constitutionality of an enactment, the court must defer to the legislature's judgment unless it is manifestly unreasonable, arbitrary or capricious. The court also upheld, without exposition, the ordinance's regulation of private property use as a valid exercise of the City's police powers and not as a taking.

19. Peterson v. City of Long Beach, 24 Cal.3d 238, 594 P.2d 447, 155 Cal.Rptr. 360 (1979)

REGULATORY STANDARDS

A City police officer responded to a report of a burglary in progress. He approached the scene of the crime with gun drawn. Warren Peterson fled the scene and was shot dead. The decedent's parents sued the City for wrongful death alleging negligence in the officer's use of deadly force.

The trial court ruled that the officer's use of deadly force was justifiable and granted judgment to the City.

On appeal, the court noted that the City's police department manual contains regulations governing a police officer's use of deadly force. The police officer in question did not comply with those regulations in discharging his gun. Under the California Evidence Code, if the police manual is considered to be a "regulation of a public entity," then any use of deadly force in violation of that manual would create a presumption that such use was negligent. The court held that the City Manager and Police Chief acting as agents of the City in promulgating the manual raised the manual to the status of a "regulation of a public entity." In examining this issue, the court found that such an interpretation was in accord with the legislative intent. Therefore, the officer's violation of the police manual directives created a presumption of negligence which must be rebutted at trial.

20. Molien v. Kaiser Foundation Hospitals, 27 Cal.3d 916, 167 Cal.Rptr. 831 (1980)
EMOTIONAL DISTRESS DAMAGES

Valerie G. Molien underwent a routine physical examination. A staff physician of the defendant negligently examined and tested her and subsequently advised her she had contracted infectious syphilis. She was advised to inform her husband so he could be tested. As a result of the negligently erroneous diagnosis, the couple suffered a break up of their marriage. The husband Steven H. Molien filed suit against the defendants alleging that the negligent misdiagnosis caused him emotional distress and loss of consortium.

The trial court granted the defendant's demurrer to the complaint.

The California Supreme Court overturned the demurrer. The court recognized that heretofore a claim for emotional distress damages was required to be predicated on a requirement that the plaintiff suffer some form of physical injury to corroborate the authenticity of the emotional distress claim. The court in Molien overturned the line of cases requiring such physical manifestation of the emotional distress. It found that the distinction between physical and psychological injury is artificial and clouds the central issue of whether the plaintiff can prove the emotional distress damages.

21. J'aire Corp. v. Gregory, 24 Cal. 3d 799, 598 P.2d 60, 157 Cal. Rptr. 407 (1979)
PURELY ECONOMIC LOSS

J'aire Corp, under a lease, operated a restaurant at a county airport. In 1975, the county entered into a contract with a general contractor for improvements to the restaurants; these improvements were in the terms of the lease. J'aire Corp. sued the general contractor (Gregory) for negligently failing to complete the work within a reasonable time. Business losses of \$50,000 were claimed as damages.

The court held that even where negligent conduct causes injury only to prospective economic advantage, recovery is not foreclosed. In drawing this conclusion, the court stated that where a special relationship exists, a plaintiff may recover loss of expected economic advantage.

In holding Gregory liable, the court found a special relationship by applying a seven-part test based on foreseeability and its relationship to the damages alleged. The court stated that it was clear that the failure to complete the project in time would result in damages and that the class of persons who would be harmed were circumscribed and foreseeable.

D. UTAH

1. Standiford v. Salt Lake City Corporation, 605 P.2d 1230 (Utah 1980)
GOVERNMENTAL/PROPRIETARY FUNCTION

Standiford was using a golf course owned, operated and maintained by the City. She stepped into an unmarked, unguarded, grass covered, one foot deep hole which housed a sprinkler head. She sustained bodily injury and filed suit against the City.

The trial court dismissed the action on the grounds that the operation of the golf course is a governmental function for which the City is immune from tort liability. After an extensive multi-state review of the governmental/proprietary function test which, up to that time, governed the question of whether governmental action was immune under the statute, the court concluded that the theory was inherently unsound and unworkable, and led to inconsistent results. Upon close examination, the court also concluded that the language of the statute did not dictate use of the governmental/proprietary distinction. Therefore, the court discarded the governmental/proprietary function test. Thereafter, the test for determining governmental immunity is whether the activity is of such a unique nature that it can only be performed by a governmental agency or that it is essential to core governmental activities. In so holding, the court noted that its decision would narrow governmental immunity and allow more victims to recover damage for tortious conduct.

2. Bigelow v. Ingersoll, 618 P.2d 50 (Utah 1980)
DISCRETIONARY IMMUNITY

Plaintiffs were injured in a vehicular accident at an intersection. They filed suit against the State alleging negligence in the design of the traffic control lights at the intersection.

The trial court granted the defendant's motion for summary judgment based on its conclusion that the State's activities were immune as a discretionary activity. The Supreme Court reversed the lower court decision holding that traffic control device design was not a policy-level decision.

3. Frank v. State, 613 P.2d 517 (Utah 1980)
DISCRETIONARY IMMUNITY

Jack Alger was undergoing psychiatric treatment at the state-owned hospital by a psychologist employed by Salt Lake County under contract to the hospital. Alger informed the staff that he had made previous attempts at suicide. After an unsupervised release from the facility, Alger committed suicide. Decedent's father filed suit against the State and the psychologist claiming negligence in the handling of Alger's case.

The trial court granted defendant's motion for summary judgment.

The Supreme Court reversed the lower court. The operation of the facility is immune as a governmental activity. However, the State's agent (the psychologist) may have been negligent and such negligence would then become the responsibility of the State.

With regard to the discretionary function immunity, the mere utilization of the psychologist's professional discretion does not determine whether the immunity should apply. The court held that the facts of the case do not disclose any policy making decision, i.e. one impacting on a large number of people in a myriad of unforeseeable ways.

4. Johnson v. Salt Lake City Corporation, 629 P.2d 432 (Utah 1981)
GOVERNMENTAL/PROPRIETARY FUNCTION

The City permitted skiing, tubing and sledding by the public on its golf course during the winter. A minor suffered bodily injury when her sled struck a wooden golf score stand. Plaintiff sued the City for negligence in failing to maintain a barrier around the stand.

The trial court dismissed the case on the basis of the governmental function immunity prior to the decision in Standiford. The Supreme Court reversed the lower court decision, holding that Standiford was controlling. Defendant argued that the provision of parks is a long-standing function performed by state and local governments, and therefore meets the Standiford test of an activity of such a unique nature that it can only be performed by government. The court held that the test refers only to what government alone must do, not that which it may do.

5. Thomas v. Clearfield City, 642 P.2d 737 (Utah 1982)
GOVERNMENTAL/PROPRIETARY FUNCTION

The city operated and maintained sewer lines. A blockage in one line caused water to back up into and damage Thomas' property. She sued for damages.

The trial court granted the defendant's motion for summary judgment on the basis that the sewer system operation was immune as a governmental function. The Supreme Court observed that many developments, or individual homes, operate private sewage collection systems. Therefore, the activity is not of such a unique nature that it can only be performed by government, essential to core governmental activities or something government alone must do.

6. Madsen v. Borthick, 658 P.2d 627 (Utah 1983)
GOVERNMENTAL/PROPRIETARY FUNCTION

Grove Financial Company was subject, by statute, to the supervisory and regulatory jurisdiction of the State. The bank became insolvent. A class action suit on behalf of depositors was filed against the State alleging negligence in the failure to discharge its statutory duties.

On motion of the defendant, the trial court dismissed the action. The Supreme Court concluded that the State's regulatory activities are immune as a governmental function since it was of such a unique nature that it can only be performed by the government. Unlike the case in Clearfield, allegedly similar activities by the private sector did not make the immunity unavailable. The activity of private trade associations, to which the State regulatory role was compared, is not truly comparable. The State regulatory function necessarily and inextricably involved the exercise of discretionary powers delegated by law to be exercised in the public interests. This function has no counterpart in the private sector trade associations and therefore renders the activity one only government can perform.

7. Fairclough v. Salt Lake County, 354 P.2d 105 (Utah 1960)
INVERSE CONDEMNATION

The County and a State agency reduced the grade on public property sixteen feet below plaintiff's adjacent property. Plaintiffs sued for diminution in the value of plaintiffs' property caused by the grade reduction which prevented access to said property.

The trial court denied a motion to dismiss the action and defendants appealed. The Supreme Court reversed and reiterated its position that in an action for inverse condemnation, the provision of the Utah Constitution on which such an action is based is not self-executing. Moreover, the government's consent to be so sued must be obtained legislatively.

8. Sanford v. University of Utah, 483 P.2d 741 (Utah 1971)
DANGEROUS CONDITION OF PUBLIC PROPERTY

The defendant constructed a parking lot and roadway adjacent to plaintiff's property. The improvement changed the natural drainage of the land from a northerly flow to a westerly one (towards plaintiff's property). In 1963, plaintiff's home was flooded by surface water runoff from the plaintiff's property. The defendant compensated her and attempted to assure her regarding potential future floods. The plaintiff's property was again flooded by runoff from defendant's property. She sued for damages alleging that the property was defective or in a dangerous condition.

The defendants argued that the liability for defective or dangerous conditions of a public facility imposed by Sections 8 and 9 of the Utah Act is not actionable unless there is also negligence by a public employee under Section 10. The trial court rejected this argument. Further, the trial court held that intentional alteration of surface water flow will give rise to tort liability, if the alteration is unreasonable. The Supreme Court upheld both findings.

E. WASHINGTON

1. Evangelical United Brethren Church of Adna v. State, 67 WN. 2d 246, 407 P.2d 440 (1965)
DISCRETIONARY IMMUNITY

On June 30, 1960, a youth with a prior history of institutionalization for delinquent behavior, including the setting of four fires, was assigned to a state run "close security" facility. The facility's administrators and professionals assigned the youth to an "open program" at the site. The youth was paroled in September 1961 to relatives. Five months later he was returned to the facility after running away from his relative's home. The youth was again assigned to the "open program." On April 2, 1962, he escaped from a supervised work detail. The local law enforcement agencies were informed of the youth's escape twenty to thirty minutes after it occurred. Before the youth was apprehended the youth set fire to the plaintiff's church. Plaintiff sued the State on the theory that the damage was proximately caused by one, some or all of the following negligent acts: (1) maintenance of an "open program" at the facility; (2) assignment of the youth to the "open program"; (3) assignment of the youth to the work detail; and (4) failure to notify law enforcement agencies earlier.

The trial court denied the State's various motions for dismissal of the case. On appeal the Supreme Court cited Dalhite v. U.S. 346 U.S. 15, 73 S.Ct. 956, 97 L.Ed. 7427 (1953) for the proposition that, in assessing the tort liability of government, the courts must make a determination on where the boundary between actions subject to traditional tort analysis may be imposed. Recognizing the complexity of the issue, the court proposed the following guidelines: (1) Does the challenged act, omission, or decision necessarily involve a basic governmental policy, program, or objective? (2) Is the questioned act, omission, or decision essential to the realization or accomplishment of that policy, program, or objective as opposed to one which would not change the course or direction of the policy, program, or objective? (3) Does the act, omission, or decision require the exercise of basic policy evaluation, judgment, and expertise on the part of the governmental agency involved? (4) Does the governmental agency involved possess the requisite constitutional, statutory, or lawful authority and duty to do or make the challenged act, omission, or decision? If these preliminary questions can be clearly and unequivocally answered in the affirmative, then the challenged act, omission, or decision can, with a reasonable degree of assurance, be classified as a discretionary governmental process and nontortious, regardless of its un wisdom. If, however, one or more of the questions call for or suggest a negative answer, then further inquiry may well become necessary, depending upon the facts and circumstances involved.

With respect to the allegations of negligence in the maintenance of the "open program" and the assignment of the youth to it, the court found that the statute creating the programs enunciated certain goals but delegated the actual policy decisions in formulating specific programs to achieve those goals and the policy decisions involved in assigning specific individuals to a program to be a discretionary act and within the immunity. These determinations required a complex weighing of the societal goals of rehabilitating wayward youths and protecting society at large as well as complex decisions on the appropriate course of treatment for an individual youth.

With respect to the allegations of negligence in assigning the youth to the work detail, the court concludes that, as a matter of law, the escape was not foreseeable and therefore non-negligent.

With respect to the allegation of negligence in the delay in reporting the escape, the court concluded that, as matter of law, the delay was not the proximate cause of the damage.

2. Stewart v. State, 92 WN. 2d 285, 597 P.2d 101 (1979)
DISCRETIONARY IMMUNITY

Stewart was injured in a four-car collision on a state bridge. Stewart's car had spun out of control shortly after entering the bridge and blocked two of the three northbound lanes. The bridge was dark because freeway lights terminated where the freeway straightened out into the bridge structure. Furthermore, there was no sign that a motorist is entering a bridge structure, nor was there an overhead structure to indicate a bridge. There was a low guard rail. The collision occurred when Stewart was unable to divert three cars (one in each lane) that approached the scene of the spin out. Stewart sued the State, based on negligent design. Stewart presented expert testimony that the design of the bridge and the lighting system was defective in several respects.

The trial court, nonetheless, instructed the jury that the design of the bridge and the lighting system was not negligent as a matter of law. Presumably, the instruction is based on the assumption that the design is immune as a discretionary function.

The appellate court reversed the trial court's determination, holding that although the basic decision to build a freeway, place it on the bridge, and design the number of lanes all involved basic governmental policy, the negligent design itself was not necessary to accomplish this policy. The State failed to show that "it considered the risks and advantages of the particular designs, that they were consciously balanced against alternatives, taking into account safety, economics, adopted standards, recognized engineering practices, and whatever else was appropriate." Thus the court concluded that the evidence as to the negligent design was an issue to be decided by the jury.

3. Campbell v. City of Bellevue, 85 WN. 2d 1, 530 P.2d 234 (1975)
PUBLIC DUTY DOCTRINE

A landowner's property was adjacent to a creek in which he had installed considerable outdoor and underwater lighting and wiring. On one occasion those attempting to extract a dead raccoon from the creek received an electrical shock. The City made an inspection after which a red tag was affixed to the front door of the landowner's residence which stated that "wiring running through creek is unsafe and constitutes a threat to life. This situation will have to be corrected immediately or the service will be disconnected." However, no action was taken to sever or otherwise disconnect the outdoor wiring and no corrective measures were specified on the red tag. Five months later Eric Campbell, a next door neighbor, was playing near the creek and slipped in. He received a paralyzing shock. His mother, in attempting to rescue him, received a similar electric shock, fell into the stream and perished. The City's building code required that a building official shall "immediately sever" any unlawful electrical installation and, if the owner refuses to do so himself, "shall disconnect dangerous electrical facilities." Plaintiff sued for bodily injury and wrongful death alleging the City was negligent in failing to eliminate the hazard.

The Washington Supreme Court imposed liability. According to the Court, the key facts were that the inspector had actual knowledge of the extreme danger and violated the code in not taking steps to eliminate it. The City defended by saying that the City's building code gave the City a duty to the general public and not to the specific individuals who were injured. The Court stated that the requirements of the code were "not only designed for the protection of the general public but, more particularly, for the benefit of those persons or class of persons residing within the ambit of the danger involved a category into which the plaintiff and his neighbors readily fall." The Court noted that the City's code had dictated remedial action and that there had been a negligent failure to take appropriate action respecting known and serious dangers. The City argued that a provision of the code in question was intended to preclude liability. The Court rejected this contention but suggested by implication that an appropriate provision in a city code can be effective in preventing liability.

4. Halvorson v. Dahl, 89 WN. 2d 673, 574 P.2d 1190 (1978)
PUBLIC DUTY DOCTRINE

Suit was brought by the widow of a man who died in a fire in a Seattle hotel in May 1976. Defendant Dahl owned the hotel. The City of Seattle was also named as a defendant based upon its alleged failure to enforce the building, housing and safety codes which allegedly resulted in the fire. It was alleged that the City had been aware of code violations in the hotel for at least 6 years prior to the fire. The City had embarked upon programs of enforcement of building, housing and safety codes on several occasions but had never followed through to force owners of the hotel to bring the structure into compliance.

In ruling that the plaintiff was entitled to sue, the court discussed the "public duty" rule. It stated that:

"The traditional rule is that municipal ordinances impose a duty upon municipal officials which is owed to the public as a whole, so that a duty enforceable in tort is not owed to any particular individual."

The court found that the Halvorson claim fit within an exception to the traditional rule as follows:

"Liability can be founded upon a municipal code if the code by its terms evidences a clear intent to identify and protect a particular and circumscribed class of persons."

The court considered that the Seattle housing code was such a statute.

5. J & B Development Co., Inc. v. King County, 100 WN. 2d 299 669 P.2d 469 (1983)
PUBLIC DUTY DOCTRINE

J & B Development Co. (J & B) owned an undeveloped lot in King County. J & B submitted a lot plan to the county as part of its application for a building permit. A county permit technician issued the permit without noticing that J & B's plan did not comply with the King County code requirements for a 48 foot setback. After grading and preliminary foundation work, J & B requested a county inspection. The inspector failed to detect the setback error. After the inspection, J & B continued construction. After neighbors complained of the insufficient setback, the county suspended the permit it had issued. J & B sued the county for an injunction to reinstate the permit or for damages (lost rents and increased construction costs).

The trial court ruled against J & B on the damage claim asserting that under the public duty doctrine the county owed no duty to J & B.

The State Supreme Court affirmed the applicability of the public duty doctrine but ruled that the facts of the case fell within an exception to the rule. First, there was direct contact between J & B and the county which contact engendered J & B's reasonable reliance that its plans were in compliance with applicable county rules. Second, the court held that the statutes imposing the permit and inspection requirement were designed to benefit a limited class of persons - builders - and that J & B fell within that class and the injury suffered was of a type that the ordinance sought to prevent. Each is an independent and viable exception to the public duty doctrine. Underlying this finding is the conclusion that the county was under a duty to exercise reasonable care in issuing the permit.

Throughout its analysis, the court sounded a theme that the purpose of the public duty doctrine and exceptions thereto under the special relationship rule was to focus on the "duty" analysis.

6. Pierce v. Spokane County, 730 P.2d 82 (1986)
PUBLIC DUTY DOCTRINE

A county inspector halted construction of a single family home because of concern that the fill on which the house would rest was potentially unstable. After testing the soil on an adjacent lot, the county permitted the developer to complete construction. The plaintiffs purchased the completed home from the developer. The foundation became severely cracked. The plaintiffs sued the county alleging negligence in inspection of the house and underlying soil.

The trial court granted plaintiff's motion for summary judgment, holding that under the public duty doctrine, the county owed no duty to the plaintiff. The appellate court agreed. The county has never had direct contact with the plaintiffs nor did it provide any assurances to them. Further, the court noted the discrepancy between J & B Development and Halvorson. In J & B Development, the court held that the issuance of a building permit was intended to benefit "builders" and that therefore, a special relationship existed, upon which one could base a tort claim. In Halvorson, language similar to that in J & B Development was found to extend the special relationship to all occupants of the building. The court concluded that the purposes of a housing code were broader than those of a building code and properly encompasses occupants. The same language in a building code could be limited to builders due to the more limited scope of building codes. The court then held that the code in question in Pierce was a building code and therefore, the ambit of the special relationship was limited to builders.

7. Baily v. Town of Forks, 108 WN. 2d 262, 737 P.2d 1257 (1987)
PUBLIC DUTY DOCTRINE

On August 5, 1979, the plaintiff was a passenger on a motorcycle. An accident occurred when a truck driven by Harvey Medley made an illegal left turn. The motorcyclist was killed and plaintiff suffered serious permanent injuries. A Forks police officer allegedly had "official contact" with Medley prior to the accident. Plaintiff alleged that Riddle knew, or should have known, Medley was intoxicated. Plaintiff further alleged that Riddle ordered Medley out of the area and observed Medley getting behind the wheel of the truck. Plaintiff sued Forks for failing to enforce its ordinance against driving while intoxicated and failing to take Medley into custody.

The trial court dismissed the complaint on a motion for judgment on the pleading. A lower appellate court upheld the decision based on the public duty doctrine. The Supreme Court reversed both lower courts. It found that state law (1) prohibits driving while intoxicated; and (2) requires a police officer to take "a person who appears to be incapacitated by alcohol" into custody. Riddle failed to take the required action. Such failure may have contributed to plaintiff's injuries. Finally, the plaintiff was within the class of people intended to be protected by the statute. Thus, the facts in Forks fall within the special relationship exception to the public duty doctrine. Moreover, the result is consistent with general tort principles governing liability -- foreseeability and consistency with pertinent policy concerns.

It should be noted that in remanding the case to the lower court for trial, the Supreme Court pointed out that the City could defend the "reasonableness" of its actions based on availability of resources (manpower and custodial facilities) and resource allocation. Then, issues would normally be components of a discretionary function immunity. The failure to apply the immunity to Forks may be a function of a procedural anomaly (dismissal on a motion for judgment on the pleadings) on the inability of the City to show that their issues were considered by officials empowered to decide them.

8. Brown v. McPherson's Inc., 86 WN.2d 293, 545 P.2d 13 (1975)
AFFIRMATIVE DUTY

A University of Washington avalanche expert had warned the real estate division of the State Department of Motor Vehicles of the possibility of an avalanche in the Stevens Pass area. A representative of the State agency had promised to convey this warning to the local residents. Relying upon this promise, the expert refrained from taking direct action to give the local residents an appropriate warning. Not only did the State representative fail to comply with his promise, but in communications with the plaintiff, a local developer, the representative specifically indicated that there was no avalanche danger. The plaintiff and other local residents sued the State for loss of life and property damages, alleging negligence in the State's failure to warn them of the avalanche.

The State resisted the suit in part, claiming that it had no duty (affirmative duty) to those who were injured. The Washington Supreme Court imposed liability and found an affirmative duty on the basis of the undertaking theory. The expert declined to warn the injured persons only because the State agent had promised that he would provide this warning. The court held that since the expert had reasonably relied upon the agent's promise, this would "create a duty to warn...which the State assumed but did not perform."

Secondly, the State not only failed to comply with its promise but in undertaking to communicate with the developer, McPherson, it negligently understated the true danger, thereby persuading McPherson to refrain from taking action that he might otherwise have taken to protect the local residents. This, the Court held, was negligence in performance of the undertaking and increased the risk of harm to local residents, for which the State could be held liable.

9. Cougar Business Owners Association v. State, 97 WN. 2d 466, 647 P.2d 481 (1982)

EMERGENCY AUTHORITY AND INVERSE CONDEMNATION

The town of Cougar is located approximately 11 miles southeast of Mount St. Helens. In March 1980, Mount St. Helens suffered a series of earthquakes and an eruption of steam and ash. In April, the Governor declared a state of emergency and created restricted access zones around the volcano. Throughout a series of eruptions in May, July and August, the boundaries of the restricted access zones and the rules governing them were modified. With respect to Cougar, the Governor's decision to include the town in the restricted access zone from May through September balanced the economic impacts that the restrictions on the town and the scientific community's assessment of the hazard posed to the town by the volcano. The plaintiffs sued alleging tortious interference with their business expectancy resulting from the inclusion of the town and the failure to promptly remove it from the restricted zone. Plaintiffs also made a claim based on an illegal taking of their property without just compensation.

The trial court granted the defendant's motion for summary judgment. On appeal the Supreme Court found that the Governor's action fell squarely within the discretionary function immunity. The only viable issue was the Governor's authority to take the action which allegedly gave rise to the harm. The court dismissed plaintiffs technical reading of the statutes and held that the Governor possessed the requisite authority. Further, the claim for inverse condemnation was denied since the alleged taking was nothing more than a valid exercise of the State's police powers.

10. Berg v. General Motors Corp., 87 WN. 2d 584, 555 P.2d 818 (1976)
RECOVERY OF PURELY ECONOMIC DAMAGES

The plaintiff purchased a diesel boat engine outfitted with a clutch by the manufacturer for use on his commercial fishing vessel. The engine broke down three times over approximately one year, the last time due to clutch failure. Plaintiff sued the engine manufacturer and the manufacturer who fabricated the engine/clutch package. Plaintiff claimed damages based in part on the anticipated fish catch foregone when the boat was being repaired. Among the bases for liability was the negligence of the engine/clutch manufacturer for mismatching the clutch to the engine. Apparently both manufacturers knew, or should have known, that that particular configuration would not stand up to commercial use.

The common rule is that pure economic damage without more cannot be recovered in a tort action. The Supreme Court decided to allow recovery based on the following: (1) there is no increased hazard of exposing manufacturers to indiscriminate law suits since under warranty theories the manufacturer is eventually obligated to take responsibility for the damages; (2) there is no reasonable basis for permitting recovery of economic losses in a tort action if there is damage to the property of the plaintiff and denying it when there is not; (3) it is not unfair to charge the manufacturer with damages resulting from reasonably foreseeable uses of its defective products; and (4) the issue of contractual priority which protects manufacturers in warranty claim has no place in shielding them from tort claims since the tort concept of foreseeability sufficiently protects their interests and limits their liability.

BACKGROUND RESEARCH REPORT #3

**THE IMPACT OF TORT LIABILITY ON
LOCAL GOVERNMENT PROGRAMS RELATED TO
EARTHQUAKE HAZARDS AND LOSSES**

October 1988

Association of Bay Area Governments

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INTRODUCTION

This background report is one of three produced for a research project focusing on the liability of local governments for earthquake hazards and losses in the four states of California, Alaska, Utah and Washington. The research which it describes was intended to:

- determine whether local governments are responding to liability as a stimulus for earthquake hazard reduction or are being inhibited by fear of liability;
- examine the interrelationships of liability, risk management and insurance, as well as their impact on earthquake hazard reduction; and
- assess whether or not data are available that indicate that the effectiveness of liability might be increased through changes designed to encourage earthquake hazard reduction.

To ensure adequate data to identify the perceptions and activities of local governments, two opinion gathering techniques were used. Two surveys -- one for managers and one for attorneys -- were developed, mailed to 111 jurisdictions in four states, and analyzed. The response rate was quite high for a questionnaire of this type, for 43% of the attorneys and 72% of the managers responded. In addition, in-person interviews or conference calls were conducted with staff and attorneys of twenty-five local governments and insurance pools at sites chosen because recent earthquakes, program development, or research may have caused them to reassess existing activities, providing them with an opportunity to react to the liability stimulus. Sites were located in northern and southern California, as well as Washington and Utah.

MAJOR CONCLUSIONS

The questions in the survey and interviews address four major areas of concern:

- the level of awareness of earthquake hazards and the extent of preparedness for earthquakes;
- the current knowledge of, and concern for, tort liability for earthquake hazards;
- the extent of liability insurance and risk management; and
- attitudes toward tort liability, its impact on earthquake hazards, and its potential use in more effectively promoting earthquake hazard reduction.

AWARENESS OF EARTHQUAKES AND PREPAREDNESS

Groups most convinced that there was a significant earthquake hazard in their jurisdiction included those from California, jurisdictions which had experienced an earthquake in the 1980s, and large jurisdictions with a population of over 300,000.

Based on the responses to these questions, as well several follow-up questions asked of risk managers of liability insurance pools, it appears that the major factors influencing concern for and awareness of earthquake hazards are:

- occurrence of recent damaging earthquakes or other natural disasters;
- media publicity;
- likelihood of future damaging earthquakes occurring;
- jurisdiction size and location in an urban area;
- the extent to which your job requires that you think about emergency response.

Those in the Washington area were least convinced that a serious earthquake hazard exists in their area. Although they are doing less than those in the other states, this lower perceived level of risk led them to rate themselves equivalent to those from other states in terms of the "reasonableness" of their state of preparedness.

Those from larger jurisdictions in Utah were surprisingly close to those from California in a number of preparedness activities, particularly in instituting land use or sensitive areas regulations.

The interview and survey responses enabled project staff to develop four measures of an "active" earthquake program:

- a hazardous building/retrofit program;
- special requirements for nonstructural components;
- land use and study requirements for "sensitive areas"; and
- any earthquake-related policies causing proposed development projects to be canceled or significantly changed.

MOTIVATIONS FOR EARTHQUAKE PREPAREDNESS

Comparing each of these four measures of an "active" earthquake program to measures of perceived and actual earthquake risk resulted in the conclusion that higher risk does result in more active earthquake programs.

The interview data showed that even though earthquake events can trigger the initiation of programs, this is also an incomplete picture of the motivation process.

Thus, in the mailed questionnaire, the managers were asked to rank ten other possible factors based on their relative importance in motivating earthquake hazard reduction programs in their own jurisdiction. The result of this ranking is:

- 1 - Person on staff or elected official acting as leader
- 2 - Need to maintain local government functions
- 3 - Concern for potential liability
- 4 - Altruistic goal to improve public safety
- 5 - Action required by state or federal government
- 6 - Desire to avoid economic loss or loss of tax base
- 7 - Desire to avoid personal injury or injury to fellow employees
- 8 - Active risk management program
- 9 - Public image from acting, or not acting, reasonably and subsequent media coverage
- 10 - Improve employee morale

An attempt was made to determine if liability was a larger or smaller motivator among those who had more active earthquake programs. Therefore, the ranking of these motivations was compared between those who had and had not disapproved or significantly changed a proposed development project for reasons of seismic safety. Liability was tied for **first** (with leadership) among those who had experienced such a project change. Liability was tied for **second** (following public safety) among those with active land use regulations related to earthquakes. However, it was ranked as **fourth** among those with structural retrofit and nonstructural programs.

Two other observations are significant. First, liability was listed first very few times versus three other motivators: a leader, public safety, and a requirement. It achieved its

high ranking through the pervasiveness of this issue, particularly among those who had developed programs which were affecting projects.

The second observation: there is no single motivator for earthquake programs. The variety of responses accurately reflects the variety of processes for developing these programs observed in the interviews.

LIABILITY KNOWLEDGE AND CONCERN

Local attorneys believe that their jurisdiction's policy makers have an understanding of general liability issues, but only understand half of the specific concepts related to liability. Specifically:

- 97% believed that local officials understand that public officials and employees are entitled to a defense and indemnity if sued for actions undertaken in the course and scope of employment (except in rare instances).
- 75% believed that local officials understand the significance of notice rules regarding dangerous conditions of public property.
- 68% believed that local officials understand the extent of potential liability for building permits issued and denied.
- 66% believed that local officials understand the extent of potential liability for inspections of private property and corrective actions taken or not taken.
- 57% believed that local officials understand the extent of potential liability for misrepresentations of public employees.
- 50% believed that local officials understand the extent of potential liability for mandatory duties imposed by enactment.
- 40% believed that local officials understand the discretionary immunity and the distinction between discretionary and ministerial functions.
- 40% believed that local officials understand the implications of changed conditions of public property.
- 31% believed that local officials understand limitations upon the design immunities in their state's Tort Claims Act.
- 26% believed that local officials understand the extent of potential liability for drafting and/or implementing emergency response plans.

Most local government officials (67% of the managers and 77% of the attorneys) believe that the law is sometimes uncertain. An additional 22% of the managers and 17% of the attorneys believe that the law is always uncertain. Those that felt that uncertainty always or sometimes existed were asked what effect this uncertainty was having on their jurisdiction. Many felt that the uncertainty was having little or no effect on local government decisions (48% of the managers and 36% of the attorneys). A quarter felt that the uncertainty has discouraged aggressive local government actions to solve public problems (21% of the managers and 38% of the attorneys). About one-quarter felt that it contributed to the solution of public problems through concern for liability on the part of local governments (25% of the managers and 20% of the attorneys). Only a small number felt that it contributed to the solution of public problems through **unwarranted** concern for liability on the part of local governments (4% of the managers and 2% of the attorneys). The remainder (3% of the managers and 4% of the attorneys) noted other effects of the uncertainty. Managers from jurisdictions which had most types of "active" earthquake hazard mitigation programs are more likely to believe that this uncertainty is encouraging action.

Attorneys understand the differences in local government exposure to liability for public versus private property more clearly than the managers. The managers consistently believe that liability is more likely to exist than the attorneys. There is no indication that managers from jurisdictions with "active" earthquake programs see significantly more or less liability exposure than average. This finding is interesting because it indicates that the extent of liability has very little impact on motivating earthquake programs.

Most local government managers (66%) and attorneys (60%) have observed concern for liability for earthquake hazards within their jurisdictions, double the number of ten years ago (31%). Those managers from jurisdictions with most types of "active" earthquake programs are even more likely to have observed this concern. This finding is interesting because it indicates that an increase in concern for liability, rather than the perceived extent of liability, motivates earthquake mitigation programs.

LIABILITY INSURANCE AND RISK MANAGEMENT

Most local government staff (80%) believe their jurisdictions have an "active" risk management program. Half (49%) had initiated the program while insured by a private company. Most (82%) of those NOW self-insured that had initiated a risk management program while purchasing private insurance believe that the change in type of insurance had caused their risk management program to become more active. Those with "active" earthquake programs tend to be self-insured and have active risk management programs. This correlation led to several follow-up questions in the interviews. There was a widespread belief that type of insurance and risk management were NOT critical in motivating earthquake hazard reduction programs. Project staff then searched for some other explanation for the relationship. The conclusion was that the existence of active risk management programs and active earthquake programs are both the result of a progressive top management and stable elected bodies promoting safety awareness, rather than the risk management programs somehow "causing" the earthquake program to be more active.

ATTITUDES TOWARD TORT LIABILITY

Most local managers (52%) and attorneys (60%) believe that local government liability for earthquake hazards and losses related to its own public property should depend on the situation. More managers believed that the local government should be liable than should not be liable (34% vs. 14%), while more attorneys believed that the local government should not be liable than should be liable (21% vs. 19%).

They believe that local government liability for similar hazards on private property should probably not exist. Specifically, 50% of the managers thought that liability should not exist, while only 10% believed that it should exist, the remainder believing it should depend on the situation. The views of the attorneys were more strong, with more attorneys believing that the local government should not be liable than should be liable (77% vs. 4%).

Assuming that more local government action is desirable to reduce earthquake hazards, managers tend to believe that increasing liability would be more effective than decreasing it, while local attorneys tend to believe the opposite.

However, there is no indication that any major change in liability rules would result in more active earthquake programs. This conclusion is based on two observations. First, managers from jurisdictions with "active" earthquake programs do not perceive significantly more or less liability exposure than average. Second, it appears to be concern for liability, rather than the perceived extent of liability, that motivates earthquake hazard reduction programs.

SURVEY AND SITE VISIT PROCEDURES

The conclusions in this discussion are based on the results of a two-step process. First, two survey forms were developed and mailed, one to the city/town manager or county/borough administrator and a second to the local government legal counsel. In the second step, these survey data were supplemented with information from interviews with staff from local governments and liability insurance pools at selected sites. Sites were chosen because recent earthquakes, program development, or research may have caused staff of the local governments in the area to reassess existing activities, providing them with an opportunity to react to liability or other motivations for strengthening earthquake hazard reduction programs. The percentage and mean response data provided are based on those responding to each question in the mailed survey unless otherwise indicated.

THE SURVEYS

The surveys were developed by the project staff with advice from the project's Review Committee, Brian O'Toole (the risk manager for the ABAG PLAN Corporation, one of two liability insurance pools administered by ABAG) and Dr. Fran Cooper, on sabbatical from California State University at Hayward and an expert in public policy questionnaires. The surveys were based on similar surveys developed in 1978 by ABAG staff with assistance from Drossler Research Corporation. Modifications were made in selected questions and some new questions were added to better reflect current concerns.

The survey sample included all of the jurisdictions used in the 1978 survey (with the exception of the borough of North Slope, Alaska -- an area of extremely low seismic risk which did not return any of the surveys mailed to it in 1978). Additional large cities were added, as well as Salt Lake County, Utah. The decision was also made to include any jurisdictions that might be interviewed in-person in the mailed questionnaire sample. The total number of jurisdictions were increased from 88 to 111. Note that the cities of Coalinga, Morgan Hill and Whittier, California, sites of recent moderate earthquakes, were surveyed in 1978 and therefore were surveyed again. Data on the jurisdictions mailed survey forms are included in Appendix A.

Only two questionnaires were mailed to each jurisdiction, one to the city manager/county administrator, and a second to the legal counsel. The manager was free to pass the survey around among the planning, building, fire and risk management staff for responses. This tactic is different than that taken in the earlier ABAG surveys, where separate surveys were mailed to each department head and the respondents were specifically told NOT to circulate the surveys. Many circulated them anyhow and those that did not circulate the surveys may have answered some of the factual questions inaccurately. Incomplete surveys and conflicting factual data from different department heads made the analysis of the cross-correlations difficult. Since this type of analysis is the critical element of this project, project staff believe the modified approach to be most appropriate.

The questionnaires were mailed on December 1, 1987. Postcards reminding participants to return the questionnaires were mailed on December 16, 1987. Finally, telephone calls to all those who had not returned the surveys were made between December 27, 1987 and January 7, 1988. The cut-off date for returned surveys to be included in the analysis was February 19, 1988.

Project staff used the interviews as an opportunity to clarify the responses to some of the questions, and, more important, to discuss the results of the cross analysis of the risk management and liability questions with the earthquake preparedness questions.

TABLE 1: QUESTIONNAIRES MAILED AND RESPONSE RATES

STATE	NUMBER OF JURISDICTIONS	# OF ATTORNEY RESPONSES	ATTORNEY RESPONSE RATE	# OF MANAGER RESPONSES	MANAGER RESPONSE RATE	TOTAL
Alaska	10	5	50%	5	50%	50%
California	65	26	40%	49	75%	58%
Utah	15	5	33%	13	87%	60%
Washington	21	12	57%	13	62%	60%
TOTAL	111	48	43%	80	72%	58%

Although the response rate was lower for the attorneys, this did not necessarily indicate a lower interest. **Project staff are aware of at least three attorneys who had not responded for fear of their answers being used in future suits against their jurisdictions.**

It is also significant that at least one of the two questionnaires was returned by 93 (or 84%) of the 111 jurisdictions.

To gain an idea of one measure of earthquake potential for these jurisdictions, they were assigned a ranking based on the probability of an earthquake exceeding a set acceleration (one measurement of size) in their area, based on a map prepared by the Applied Technology Council, research arm of the Structural Engineers Association (ATC-03, Figure 1-1). Based on this seven point scale, among those responding were from:

- zone 7 (potential for highest acceleration) -- 49 (61%) managers and 27 (57%) attorneys;
- zone 6 -- 1 (1%) manager and 2 (4%) attorneys;
- zone 5 -- 22 (28%) managers and 15 (31%) attorneys;
- zone 4 -- 1 (1%) manager and no attorneys;
- zone 3 -- 6 (8%) managers and 4 (8%) attorneys;
- zone 2 -- 1 (1%) manager and no attorneys; and
- zone 1 (potential for lowest acceleration) -- none.

The ATC map is quite similar to the Uniform Building Code Seismic Zone Map incorporated in the 1988 UBC. ATC zones 6 and 7 are roughly equivalent to UBC zone 4 in the four-state study area, while ATC zone 5 roughly corresponds to UBC zone 3, ATC zone 4 to UBC zone 3 or 2B, ATC zone 3 to UBC zone 2B, and ATC zones 1 and 2 to UBC zones 2B or 1. Either such "scientific" measure of earthquake risk associated with the jurisdictions responding to the questionnaires much be considered as limited in its usefulness. Both the ATC and UBC maps are based on the level of shaking expected at the locations. Actual risk also relates to the building stock (including construction type and use). Thus, if a jurisdiction has a large percentage of its existing building stock in the form of unreinforced masonry buildings, it may have a higher actual risk than a jurisdiction which may be exposed to higher ground shaking, but has well-constructed wood-frame buildings.

Early in the survey, all participants were asked two background questions. First, they were asked the size of their jurisdiction. The results:

- population of less than 10,000 -- 8 (10%) managers and 6 (13%) attorneys;
- population of 10,000 to 49,999 -- 26 (32%) managers and 14 (30%) attorneys;
- population of 50,000 to 99,999 -- 14 (18%) managers and 9 (19%) attorneys;
- population of 100,000 to 299,999 -- 17 (21%) managers and 9 (19%) attorneys; and
- population of over 300,000 -- 15 (19%) managers and 9 (19%) attorneys.

Second, all were asked in what year the last damaging earthquake which affected their jurisdiction occurred. The results:

- during the 1980s -- 18 (22%) managers and 8 (17%) attorneys;
- during the 1970s -- 1 (1%) manager and 1 (2%) attorney;
- during the 1960s -- 11 (14%) managers and 5 (10%) attorneys
- during the 1950s -- 3 (4%) managers and 2 (4%) attorneys;
- during the 1940s -- none;
- before 1940 -- 12 (15%) managers and 3 (6%) attorneys; and
- never or unknown -- 35 (44%) managers and 29 (60%) attorneys.

IN-PERSON AND TELEPHONE INTERVIEWS

Project staff, with the aid of the project review committee, selected several jurisdictions for in-person or telephone interviews as a means of gaining additional information local government and insurance pool staff members. For each jurisdiction or pool, a meeting or conference call was arranged and attended by one to seven staff members. The interviews were conducted from late March until early July 1988. Three to seven local governments or risk pools were interviewed in each of the following general areas:

- northern California;
- Los Angeles County, California;
- the Puget Sound region, Washington; and
- the Salt Lake area, Utah.

Northern California jurisdictions included Coalinga, Morgan Hill, Marin County, San Francisco, and Palo Alto. Jurisdictions in the Los Angeles area included Los Angeles City and County, Whittier, Alhambra, Montebello and Long Beach. A visit was made to the Puget Sound area based on the new research indicating the possibility of a magnitude 8 seismic event in that area. Jurisdictions included Seattle, Tacoma and King County. Jurisdictions interviewed in the Utah area included Salt Lake City and County, Logan, Ogden and Provo.

In addition, interviews were conducted with the executive director or the risk manager from a total of six liability insurance pools located in these areas.

Although most of the twenty-five group interviews were conducted in person, the telephone was used for two -- one in southern California and one in northern California -- due to schedule conflicts.

Data on the recent earthquake experiences of these areas are summarized in Table 2, below, and are discussed in Appendix B.

TABLE 2: RECENT EARTHQUAKES AT SITES VISITED

AREA	DATE	LOCATION	MAGNITUDE	LIVES LOST	ESTIMATED PROPERTY LOSSES	
					(in millions \$)	
					ACTUAL \$	1988 \$
Los Angeles County, CA						
	Mar. 10, 1933	Long Beach	6.8	120	41	371
	Feb. 9, 1971	San Fernando	6.4	65	505	1460
	Oct. 1, 1987	Whittier Narrows	5.9	8	358	369
Northern California						
	May 2, 1983	Coalinga	7.2	0	31	36
	April 24, 1984	Morgan Hill	6.2	0	10	11
Puget Sound, Washington						
	April 13, 1949	Olympia	7.1	8	25	123
	April 29, 1965	Seattle	6.5	7	12	46

AWARENESS OF EARTHQUAKES AND PREPAREDNESS

The first area of concern addressed by the surveys was the level of awareness of earthquake hazards and the extent of earthquake preparedness by the local jurisdictions. This background information is particularly valuable when used in cross-correlations with measures of liability awareness and concern, relative activity of risk management programs, and type of liability insurance. These correlations will be discussed in later sections of this report.

EARTHQUAKE HAZARD SEVERITY

In the mailed questionnaire, local government staff and attorneys were each asked a series of three questions on how they view the seriousness of earthquake hazards in their community.

First, those surveyed were asked how they would describe the level of **public** awareness of earthquake hazards in their jurisdiction given a scale of:

- 1 = no awareness at all;
- 2 = very low;
- 3 = low;
- 4 = moderately high; and
- 5 = very high.

The mean response of those responding for the manager was 3.5 (that is, halfway between moderately high and low awareness). Attorneys rated awareness as slightly higher than the managers (mean response = 3.7). Those from Washington rated public awareness as much lower (m.r. = 2.9) and those from jurisdictions that had experienced a damaging earthquake in the 1980s rated public awareness as much higher (m.r. = 4.1). Those in the highest ATC risk categories (zones 6 and 7) rated public awareness as moderately high (m.r. = 3.8), while those in risk zones 4 and 5 rated public awareness as lower (m.r. = 3.3) and those in risk zones 2 and 3 rated public awareness as the lowest (m.r. = 2.3).

Next, these officials were asked how they would rate seismic safety as a policy issue within their own local government on a scale of:

- 1 = extremely low priority;
- 2 = moderately low priority;
- 3 = moderately high priority; and
- 4 = extremely high priority.

The mean response of those responding for both the manager and the attorney was 2.5 (that is, halfway between moderately low and moderately high). The perceived priority among those from jurisdictions of more than 300,000, as well as from jurisdictions in California, was slightly higher (m.r. of 2.7 and 2.8 respectively). Even higher was the perceived priority of those from jurisdictions that had experienced a damaging earthquake in the 1980s (m.r. = 3.0). Of greater significance was the much lower priority of those from Washington (m.r. of 1.8). Those in the highest ATC risk categories (zones 6 and 7) rated seismic safety as a moderate priority (m.r. = 2.7), while those in risk zones 4 and 5 rated seismic safety as a moderately low priority (m.r. = 2.3) and those in risk zones 2 and 3 rated seismic safety as the lowest priority (m.r. = 1.8).

Third, they were asked to rate the likelihood of an earthquake occurring and causing moderate to severe property damage within their jurisdiction **within the next fifty years** given a scale of:

- 1 = definitely will not occur;
- 2 = probably will not occur;
- 3 = probably will occur; and
- 4 = definitely will occur.

No one reported that such an earthquake will definitely not occur. Both those responding for the manager and the attorneys felt that such an earthquake probably would occur (m.r. = 3.1 and 3.0 respectively). The perceived likelihood of such an earthquake is greatest among those from jurisdictions that had experienced such an earthquake in the 1980s (m.r. = 3.7). It is also slightly higher among those from jurisdictions of over 300,000 people (m.r. = 3.2) and among Californians (m.r. = 3.3). When comparing the responses by state, those from Washington perceived that a damaging earthquake was least likely to occur (m.r. = 2.5). Those in the highest ATC risk categories (zones 6 and 7) believed that a damaging earthquake was most likely to occur (m.r. = 3.4), while those in risk zones 4 and 5 believed that such an earthquake was less likely but still probably would occur (m.r. = 2.8) and those in risk zones 2 and 3 believed that such an earthquake might or might not occur (m.r. = 2.4).

Following these general questions, those receiving the manager survey were provided with a list of 22 earthquake hazards. They were asked to rate each on how great a problem the hazards were **within their jurisdiction only**. The scale used was:

- 1 = not at all a problem here;
- 2 = not a very serious problem here;
- 3 = somewhat serious problem here; and
- 4 = extremely serious problem here.

The results are shown below.

TABLE 3A: LOCAL RANKING OF EARTHQUAKE HAZARDS

Four-State Area



The average hazard level perceived associated with all 22 earthquake hazards was 2.4. The average level of hazard perceived by those in Utah, California and Alaska was fairly near the overall mean (m.r. of 2.5, 2.5, and 2.6 respectively). However, the level perceived by those from Washington was significantly lower (m.r. of 2.1). Separate local rankings for each of the four states are provided on the following two pages.

As part of this same question, those surveyed were asked to choose the **ONE** item that they felt presented the greatest problem. The most common responses were:

- old unreinforced brick/masonry buildings (12 responses);
- proximity to fault (10 responses);
- possibility of major damage to "critical" facilities (6 responses);
- curtailment of water supply and resultant fire hazard (6 responses);
- problems with hazardous materials incidents during an earthquake (6 responses); and
- insufficient emergency medical personnel (6 responses).

One of the questions asked during the interviews with the insurance pools related to the level of awareness of the member cities of general earthquake hazards. All of the insurance pool directors and risk managers believed that the level of hazard awareness was quite variable. Those interviewed noted that cities which have recently experienced a damaging earthquake have a higher awareness than other jurisdictions. However, the influence of earthquakes was viewed as temporary and diminishing rapidly over time. One person also noted that the occurrence of a non-earthquake natural disaster can heighten the local awareness of earthquake hazards, particularly if the media draw an analogy. Cities with special problems, such as large areas of fill, were believed to be more likely to be aware of earthquake hazards than others. Areas of low risk and rural areas were believed to be most likely to be unconcerned. Some noted that even in areas of high or moderate risk, awareness and concern tend to be limited to emergency staff. One person noted that even in cities where the emergency staff might be quite concerned about earthquakes, public works facility supervisors might describe the hazard as an "act of God," "something not worth considering from a cost/benefit standpoint," and "a political, rather than an actual, hazard." Given such variations among staff members, it is useful to remember that the person responding to the written survey was likely to be more aware of and concerned about earthquake hazards than the typical government staff member.

Based on this series of questions, it appears that the major factors influencing concern for and awareness of earthquake hazards are:

- occurrence of recent damaging earthquakes or other natural disasters;
- media publicity;
- likelihood of future damaging earthquakes occurring;
- jurisdiction size and location in an urban area;
- the extent to which your job requires that you think about emergency response.

For purposes of further analysis of local government actions, the question on the likelihood of a damaging earthquake in the next fifty years appears most suitable as a measure of perceived risk.

TABLE 3B: LOCAL RANKING OF EARTHQUAKE HAZARDS

California Area



TABLE 3C: LOCAL RANKING OF EARTHQUAKE HAZARDS

Alaska Area

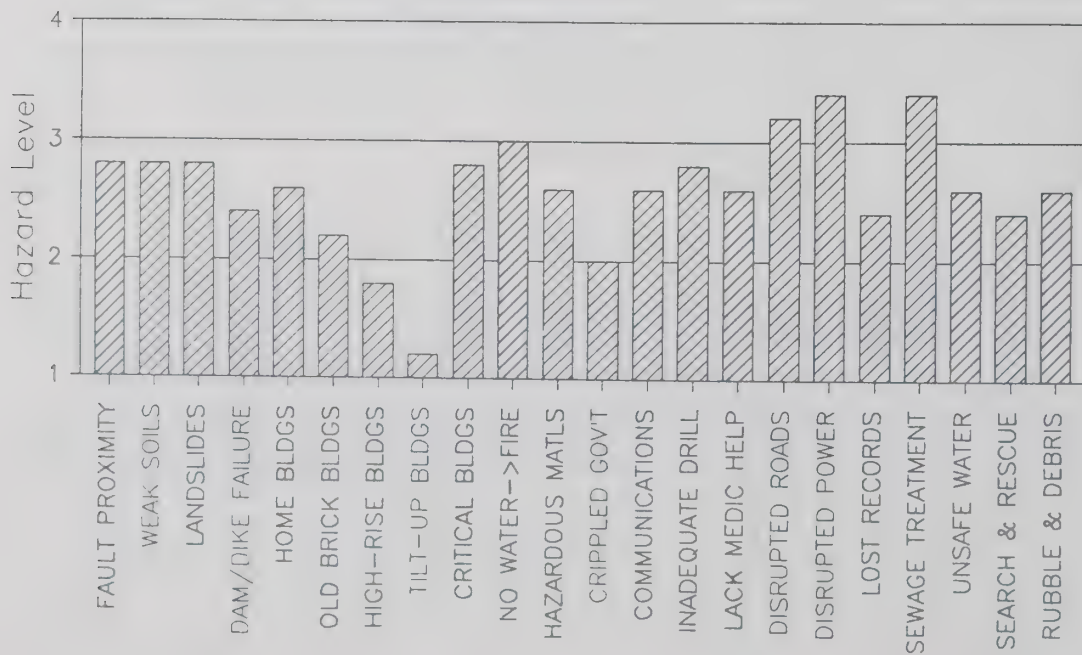


TABLE 3D: LOCAL RANKING OF EARTHQUAKE HAZARDS

Utah Area

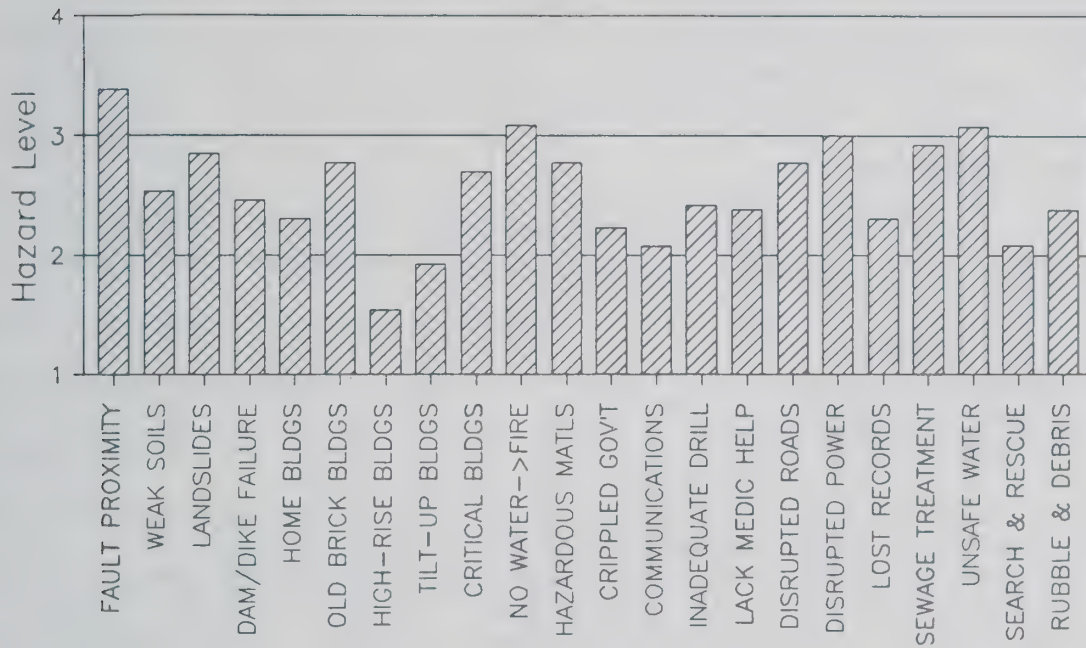
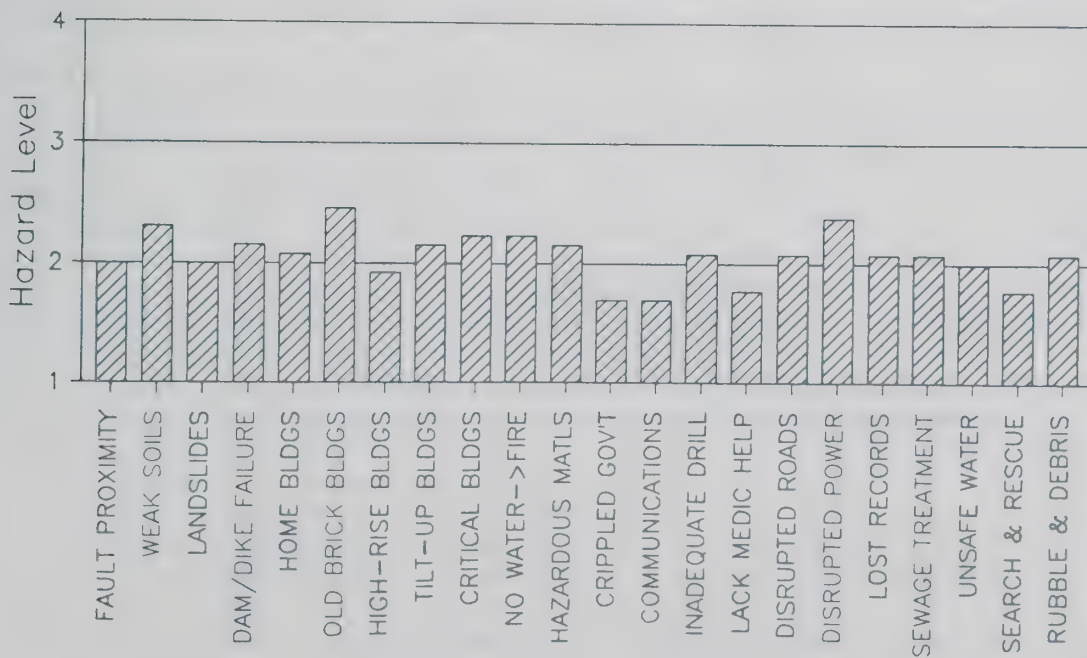


TABLE 3E: LOCAL RANKING OF EARTHQUAKE HAZARDS

Washington Area



EARTHQUAKE HAZARD MITIGATION

The purpose of the next set of questions was to develop one or two measures of an "active" earthquake program to be used in cross-correlations described later in this report. Therefore, the manager survey asked several questions related to the policies and programs for mitigating earthquake hazards. The attorneys were asked only one question in this area.

General State of Preparedness

All surveyed were asked the general question on how they would describe their jurisdiction's "state of preparedness" for an earthquake that causes moderate to severe property damage on a scale of:

- 1 = not at all prepared;
- 2 = not very well prepared;
- 3 = reasonably prepared; and
- 4 = very well prepared.

The level of preparedness felt to exist was virtually the same for the attorneys and managers, and closer to reasonably prepared than not very well prepared (m.r. of 2.72 and 2.75 respectively). Interestingly, there was very little variation on this response among the four states (m.r. for California = 2.8, for Alaska = 2.5, for Utah = 2.7, and for Washington = 2.6). This is most noteworthy for Washington, showing that the perceived level of preparedness is "reasonable" given that the perceived hazard is lower. Responses from jurisdictions of over 300,000 were also similar (m.r. = 2.7). The level of preparedness among those from jurisdictions that have experienced a damaging earthquake in the 1980s is slightly higher (m.r. = 3.0), however. Because of the low variability in the responses to this question, it is NOT an acceptable indicator of an "active" earthquake program.

Specific Mitigation Programs Related to Earthquakes

The principal questions on earthquake preparedness asked the managers to indicate those policies and practices that had been revised or instituted in the past five years, or prior to five years ago. In a set of follow-up questions, they were asked to indicate any that related **primarily** to seismic safety. The results (combining the responses to the questions on when the programs had been revised or instituted into a single result on whether or not such a program exists) are summarized in Table 4, below. There appeared to be confusion on how to answer the follow-up questions, so a quarter of the time spent in the in-person interviews was spent on clarifying the responses to these questions so that the results might be used in the analysis as a measure of an "active" earthquake program. Several jurisdictions which had indicated that their programs related **primarily** to seismic safety were the subject of these in-person interviews. Additional data on the interview results for these questions are contained in Appendix C.

Of the four questions asked related to structural mitigation, the one on the existence of a "hazardous building/retrofit program" was the best indicator that the building department was actively involved in earthquake mitigation.

The responses to the question on the existence of "special requirements for nonstructural components" also appeared to be sufficiently accurate to be useful in correlations with responses to later questions.

TABLE 4: POLICIES AND PRACTICES INSTITUTED BY LOCAL GOVERNMENTS

PROGRAM	NUMBER INSTITUTED OR REVISED	NUMBER RELATED PRIMARILY TO SEISMIC SAFETY
Special building design requirements (other than the UBC)	38	11
Building inspection program	60	5
Hazardous building retrofit/abatement programs	36	9
Posting of signs on dangerous private or public structures	34	2
Special requirements for nonstructural components	30	6
Soil studies for new construction	58	15
Geotechnical studies for new construction	47	16
Disclosure requirements about earthquake hazards	37	8
Land use or zoning restrictions	60	8
Reconstruction/redevelopment plans	37	0
Procedures for reviewing proposed new developments	62	6
Safety (including seismic safety) element of general plan	60	19
Back-up data or record storage processing techniques	46	3
Disaster response plan	70	17
Public information and education	57	21

Seven questions were asked on land use and study requirements related to "sensitive areas." No single question, on its own, was an accurate indicator of whether or not the planning department was actively involved in earthquake mitigation. However, the TOTAL of these programs said to be in existence, along with whether or not the jurisdiction knew of a development project that had been canceled or significantly changed due to earthquake concerns, was an accurate indicator of an active program. Specifically, if the TOTAL positive responses to these eight questions was three or more, the program was truly active, while if the TOTAL was less than three, it was not.

No responses to any of the final three program questions were sufficiently accurate to be useful in identifying jurisdictions with "active" earthquake programs.

When the managers were asked if they had revised or instituted any OTHER policies or practices due primarily to concern for seismic safety, 31% indicated that they had done so. However,

many programs described could be viewed as a part of one of the programs listed earlier, so this gauge of the relative activity of a local governments earthquake program was also flawed. The programs described by more than one jurisdiction (with number of occurrences in parentheses) were:

- frequent or periodic earthquake drills (3 responses);
- special upgrading or hazard reduction programs for unreinforced masonry buildings (3 responses);
- special employee training in earthquake mitigation or response (2 responses);
- development of emergency communications, power and water capability (2 responses);
- seismic surveys of selected city-owned buildings (2 responses); and
- innovative public education programs (2 responses).

TOTAL RESPONSES = 24

Of managers from jurisdictions with populations of over 300,000, 53% indicated that other programs existed, while 56% of those from jurisdictions that had experienced recent earthquakes indicated that other programs existed. On the other hand, only 18% of those from Washington and 20% of those from Alaska indicated that other programs existed.

Mitigation Programs NOT Being Instituted

Next, the managers were asked to list the three programs from the previous question (see Table 5) not being done in their jurisdiction that they considered the most important. The programs noted most often (with number of occurrences in parentheses) were:

- hazardous building retrofit/abatement programs (23);
- public information and education (21);
- disaster response plan (14);
- special building design requirements (other than the Uniform Building Code) (12);
- building inspection program (11); and
- special requirements for nonstructural components (9).

TOTAL RESPONSES (IN ANY OF THE THREE POSITIONS) = 135

Among large jurisdictions of over 300,000, the most common response was *hazardous building retrofit/abatement* (listed FIRST by 5 of the 14 responding to this question. The most common response by Washington jurisdictions was *soil studies for new construction* (listed first by 3 of the 6 responding). The most common responses by Utah jurisdictions was *disaster response plan* and *public information and education* (EACH listed by 4 of the 12 jurisdictions responding).

Reasons listed more than once for not taking those actions described were:

- lack of funds (no money, budget or financing) (28 responses);
- lack of staff time or personnel (16 responses);
- perceived lower level of risk than other states or than in other parts of the state (9 responses);
- other day-to-day or competing priorities (6 responses);
- community and political apathy (6 responses);
- lack of urgency ("it won't happen here in MY lifetime") (5 responses); and
- community opposition to development restrictions (5 responses);

- lack of staff training or state/professional guidelines for dealing with identifying and retrofitting existing hazardous buildings (3 responses);
- social and economic concerns related to the impact of regulations on hazardous building owners and tenants (2 responses);
- the lack of the legal or statutory authority (2 responses); and
- lack of public awareness of the extent of the risk (2 responses).

TOTAL RESPONSES = 91 (Although several of those surveyed did not respond to this question, many more respondents listed more than one reason; hence, the number of responses is larger than the number of participants.)

Impact of Policies and Programs on Development Projects

When asked if, within the past 10 years, any proposed development project had been disapproved or significantly changed for reasons of seismic safety, only 26% responded that this had occurred. The percentage of jurisdictions with projects that had been affected by seismic safety was highest in California (32%), followed by Utah (23%), Alaska (20%), and Washington (8%). This effect was observed more than twice as often by those from jurisdictions that had experienced an earthquake in the 1980s (55%) and by those from jurisdictions with populations over 300,000 (60%).

The responses to this question were used as one component for gauging whether or not the planning department was actively engaged in earthquake mitigation (see page 13). In addition, the responses to this question appeared to be the best test of which jurisdictions had particularly active earthquake programs. However, there were two concerns with this measure of an "active" earthquake program. First, how would cities respond if the only changes to projects were to incorporate standard Uniform Building Code requirements? The interviews confirmed that the cities were not viewing such "changes" as significant. Second, is this measure missing some cities with aggressive programs simply because they have few new projects? The interviews showed that such cities viewed their programs to retrofit their own public buildings or to mandate changes in unreinforced masonry buildings as being significant.

Existence of a Disaster Response Plan

Finally, those surveyed were asked if their jurisdiction had a disaster response plan which took into account earthquakes. Overall, 91% had such a plan. Again, the percentage of jurisdictions that had such a plan was highest in California (98%). However, in this case, those from Washington came in second with 85%, followed by Alaska (80%) and Utah (75%). **ALL** of those from large jurisdictions of over 300,000 and from jurisdictions which had experienced an earthquake in the 1980s indicated that their jurisdiction had such a plan. Because of the large number of jurisdictions with such a plan, its existence could NOT be used as a measure of an active earthquake program.

General Findings

The process developed four measures of an "active" earthquake program:

- a positive response to the question on the existence of a "hazardous building/retrofit program";
- a positive response to the question on the existence of "special requirements for nonstructural components";
- three or more positive responses to the questions related to land use and study requirements for "sensitive areas"; and

- a positive response to the question on if any proposed development projects had been canceled or significantly changed because of earthquakes.

Each of these four measures of an "active" earthquake program was compared to each of two measures of earthquake risk:

- the ATC-03 maps; and
- the responses to the question on the likelihood of an earthquake occurring in the next fifty years.

MOTIVATIONS FOR EARTHQUAKE PREPAREDNESS

Two of the obvious motivators for earthquake preparedness are a high actual or perceived earthquake risk. All of the jurisdictions with "active" earthquake programs were, in fact, in high earthquake risk areas (ATC-03 map areas 7 or 5). However, whether the jurisdictions were in a high risk area (ATC area 5) or the highest risk area (ATC area 7) had no significant affect in the activity of the local earthquake programs using three of the four measures of program activity.

- 12% of those in ATC risk area 7 had retrofit programs vs. 14% in risk area 5.
- 8% of those in ATC risk area 7 had nonstructural programs vs. 9% in risk area 5.
- 20% of those in ATC risk area 7 had land use regulations vs. 23% in risk area 5.

The one exception relates to the question on whether or not a project had been significantly changed or canceled, where 33% of those in ATC risk area 7 had seen this occur, while only 18% of those in ATC risk area 5 had seen this.

In addition, those surveyed from all but one of the jurisdictions with "active" earthquake programs believed that a damaging earthquake probably or definitely would occur that would affect their jurisdiction in the next 50 years. However, comparing whether those responding felt that the earthquake probably or definitely would occur yielded mixed results.

This measure of perceived risk had no significant impact on the activity of the local earthquake programs using two of the four measures of earthquake activity.

- 8% of those both believing an earthquake probably would occur and those believing an earthquake definitely would occur had nonstructural programs.
- 24% of those believing an earthquake definitely would occur and 21% of those believing an earthquake probably would occur had strong land use regulations.

But when using a third measure of an "active" earthquake program (a retrofit program), 20% of those believing an earthquake definitely would occur had such a program, versus only 8% of those believing an earthquake probably would occur. The fourth measure of an "active" earthquake program, whether or not a project had been canceled or significantly changed, provided the opposite results when compared to the responses on perceived risk, however. Only 28% of those believing an earthquake definitely would occur had observed a project being canceled or changed, while 59% of those believing an earthquake probably would occur had observed such an occurrence.

The interview data showed that earthquake events can trigger the initiation of programs, but this is also an incomplete picture of the motivation process.

From this discussion, one can conclude that other major motivators for earthquake programs exist.

Thus, in the mailed questionnaire, the managers were asked to rank ten other possible factors based on their relative importance in motivating earthquake hazard reduction programs in their own jurisdiction. The ten factors were chosen based on interviews with local government and company officials conducted as part of the previous two liability projects. The result of this ranking is:

- 1 - Person on staff or elected official acting as leader
- 2 - Need to maintain local government functions
- 3 - Concern for potential liability
- 4 - Altruistic goal to improve public safety
- 5 - Action required by state or federal government
- 6 - Desire to avoid economic loss or loss of tax base
- 7 - Desire to avoid personal injury or injury to fellow employees
- 8 - Active risk management program
- 9 - Public image generated by acting, or not acting, reasonably and subsequent media coverage
- 10 - Improve employee morale

An attempt was made to determine if liability was a larger or smaller motivator among those who had more active earthquake programs. Therefore, the ranking of these motivations was compared between those who had and had not disapproved or significantly changed a proposed development project for reasons of seismic safety. Liability was tied for **first** (with leadership) among those who had experienced such a project change. Liability was tied for **second** (following public safety) among those with active land use regulations related to earthquakes. However, it was ranked as **fourth** among those with structural retrofit programs and nonstructural programs.

Two other observations are significant. First, liability was listed first very few times (5) versus three other motivators: a leader (23), public safety (17), and a requirement (16). It achieved its high ranking through the pervasiveness of this issue, particularly among those who had developed programs which were affecting projects.

The second observation: there is no single motivator for earthquake programs. The variety of responses accurately reflects the variety of processes for developing these programs observed in the interviews.

The next section of this background report explores the role of liability in the decisionmaking process more thoroughly.

LIABILITY KNOWLEDGE AND CONCERN

Those surveyed were asked a series of questions related to:

- their understanding of general liability concepts;
- any perceived uncertainty about general liability;
- their perception of liability for earthquake hazards;
- their concern for liability for earthquake hazards; and
- other reactions to or effects of liability.

The surveys mailed to the attorneys contained more questions related to these issues than those mailed to the managers. Additional information was obtained by comparing the responses to questions in the surveys, as well as from the in-person interviews.

UNDERSTANDING OF LIABILITY CONCEPTS

The attorneys were the source of all of the information in this part of the analysis.

First, they were asked to choose which of five statements best characterizes the understanding of their jurisdiction's chief public officials of tort liability rules:

- 1 = detailed and relatively complete understanding;
- 2 = good understanding on a few specific areas (such as workers' compensation) but poor understanding in other areas;
- 3 = aware of issue, but relatively little understanding of details;
- 4 = very little understanding; and
- 5 = no understanding.

The mean response of 2.4 indicates that the attorneys believe that most are aware of the issue and have some understanding. It is interesting that this perceived level of understanding is identical to that believed to exist by the attorneys in 1978.

Next, these attorneys were asked if they felt that this understanding was reasonably accurate. The vast majority (89%) believed that it was accurate.

In a series of questions, the attorneys were asked about local officials' understanding of ten specific liability concepts within their own jurisdiction. They were also asked if they had had occasion to advise those public officials about the concept or issue more than once. Finally, they were asked if the issue was one for which one or more claims had been filed in their jurisdiction in the past three years. The concepts and percentages responding affirmatively to each of the three sub-questions follow. State-to-state variations on perceived understanding also are included.

The discretionary immunity and the distinction between discretionary and ministerial functions.

- 40% believed this was understood by public officials in their jurisdiction.
- 89% had advised those officials more than once on this issue.
- 64% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from California were most likely to believe this concept was understood (48%), while those from Utah were least likely to believe this concept was understood (25%).

The extent of potential liability for mandatory duties imposed by enactment.

- 50% believed this was understood by public officials in their jurisdiction.
- 74% had advised those officials more than once on this issue.
- 41% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from California and Utah were most likely to believe this concept was understood (60%) for both, while **none** of the five attorneys from Alaska believed this concept was understood.

Limitations upon the design immunities in their state's Tort Claims Act.

- 31% believed this was understood by public officials in their jurisdiction.
- 51% had advised those officials more than once on this issue.
- 40% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from Utah were most likely to believe this concept was understood (40%), while those from Alaska were least likely to believe this concept was understood (25%).

The significance of notice rules regarding dangerous conditions of public property.

- 75% believed this was understood by public officials in their jurisdiction.
- 79% had advised those officials more than once on this issue.
- 53% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from Utah were much less likely to believe officials understood this concept than attorneys from the other three states (only 40%).

That public officials and employees are entitled to a defense and indemnity if sued for liabilities arising in the course and scope of employment (except in rare instances).

- 97% believed this was understood by public officials in their jurisdiction.
- 93% had advised those officials more than once on this issue.
- 67% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from Alaska were much less likely to believe officials understood this concept than those from the other three states (only 60%).

The extent of potential liability for building permits issued and denied.

- 68% believed this was understood by public officials in their jurisdiction.
- 74% had advised those officials more than once on this issue.
- 47% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from Alaska and Washington were more likely to believe officials understood this concept (80% and 83%), while those from California and Utah were less likely to believe this concept was understood (60% for both).

The extent of potential liability for misrepresentations of public employees.

- 57% believed this was understood by public officials in their jurisdiction.
- 70% had advised those officials more than once on this issue.
- 47% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.

- Attorneys from Utah and Washington were more likely to believe officials understood this concept (80% and 83%), while Californians were less likely (40%).

The extent of potential liability for inspection of private property and/or corrective actions taken or not taken.

- 66% believed this was understood by public officials in their jurisdiction.
- 79% had advised those officials more than once on this issue.
- 51% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from California and Washington were more likely to believe officials understood this concept (72% and 75%), while those from Alaska and Utah were less likely (40% for both).

The implications of changed conditions of public property.

- 40% believed this was understood by public officials in their jurisdiction.
- 34% had advised those officials more than once on this issue.
- 32% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from all four states were equivalent in their perception of understanding of this concept.

The extent of potential liability for drafting and/or implementing emergency response plans.

- 26% believed this was understood by public officials in their jurisdiction.
- 28% had advised those officials more than once on this issue.
- 9% noted that claims had been filed related to this issue in their jurisdiction in the past 3 years.
- Attorneys from Utah were more likely to believe this concept was understood (40%) than those from the other three states.

The average number of concepts believed understood for the entire sample was 5.4. This number was similar to that noted by the attorneys from jurisdictions with a population over 300,000 (m.r.=5.5), but slightly larger than noted by those from jurisdictions which had experienced a damaging earthquake in the 1980s (m.r.=4.6).

The attorneys also were asked to write down what would improve the understanding of liability rules among chief public officials in their jurisdiction. Responses included:

- training seminars or presentations (14 responses);
- an orientation briefing of new elected officials and staff, followed by regular briefings on the details by counsel (6 responses);
- written materials, including specific manuals, short summaries for a lay audience, and regular newsletters to update the information based on recent court decisions (7 responses);
- increase the "certainty" of liability statutes and cases (6 responses); and
- experience ("Being sued once does much to "educate" officials) (3 responses).

TOTAL RESPONSES = 40

As a check on overall understanding of liability issues, the attorneys were asked if their jurisdiction was pursuing any strategies to preserve or maximize immunities found in their

state's Torts Claims Act. Three-quarters indicated that such strategies were not being pursued. The responses of the one-quarter with such strategies included:

- lobbying at the state legislature (including a specific example of lobbying for greater discretionary immunity) (5 responses);
- education and participation on professional group programs (3 responses);
- appealing decisions to the Supreme Court (1 response);
- establishing an active risk management program (1 response);
- designing an inspection program to maximize notice immunities (1 response);
- using local emergency provisions of the state's disaster act to respond to spills of hazardous materials (1 response);
- avoiding imposing mandatory immunities by the wording of local regulations (1 response); and
- appearing as *amicus* as necessary to maximize immunity (1 response).

TOTAL STRATEGIES PROVIDED BY 12 RESPONDENTS = 14

UNCERTAINTY REGARDING LIABILITY

In addition to the issue of understanding is the potential problem of uncertainty. All of those surveyed were asked a series of three questions about uncertainty surrounding liability.

First, they were asked if the laws relating to liability were so uncertain that it is difficult in many instances to predict the potential liability implications of various local government activities. Some felt this was always the case (22% of the managers and 17% of the attorneys), most felt that this was sometimes the case (67% of the managers and 77% of the attorneys), and only a few felt that this was never the case (11% of the managers and 6% of the attorneys). Note that more attorneys believed the law was **sometimes** uncertain than the managers. One also can convert these data using a scale of:

- 1 = never;
- 2 = sometimes; and
- 3 = always.

The mean response of both the managers and attorneys was 2.1. When comparing responses from the four states, those from Alaska were slightly more likely to think the law was uncertain (m.r. = 2.3), and those from Washington were slightly more likely to think the law was certain (m.r. = 1.9). The responses of those from large (population over 300,000) jurisdictions and from those which experienced damaging earthquakes in the 1980s were similar to the overall sample. Responses from managers whose jurisdictions had changed or canceled a project due to seismic concerns were similar to the overall sample (m.r. = 2.1), except that more felt that the law was **sometimes** uncertain, a response closer to the attorneys than the managers in the overall sample. This response **may** indicate greater contact with attorneys. Those with retrofit programs had observed more uncertainty than the overall sample (m.r. = 2.3), as had those with nonstructural programs (m.r. = 2.5), while those with "active" land use regulations related to earthquakes had not (m.r. = 2.0).

Next, those that felt that uncertainty existed always or sometimes were asked what effect this uncertainty was having on their jurisdiction. Many felt that the uncertainty was having little or no effect on local government decisions (48% of the managers and 36% of the attorneys). A quarter felt that the uncertainty has discouraged aggressive local government actions to solve public problems (21% of the managers and 38% of the attorneys). About one-quarter felt that it

contributed to the solution of public problems through concern for liability on the part of local governments (25% of the managers and 20% of the attorneys). Only a small number felt that it contributed to the solution of public problems through **unwarranted** concern for liability on the part of local governments (4% of the managers and 2% of the attorneys). The remainder (3% of the managers and 4% of the attorneys) noted other effects of the uncertainty:

- the concept of notice inhibits starting work on structural problems;
- the uncertainty is not an issue when the hazard has not been determined;
- the uncertainty can either encourage or discourage action, depending on the circumstances; and
- the uncertainty often results in moderating a proposed response to a health and safety problem.

TOTAL RESPONSES LISTING OTHER EFFECTS = 4

The only state with a large variation from this pattern was Alaska, where only 20% believed the uncertainty was having little or no effect, 40% felt it was discouraging action, 20% felt it was encouraging action due to concern and 20% felt it as encouraging action due to **unwarranted** concern. The more radical nature of these effects is consistent with their belief that Alaskan law is more uncertain. The responses of those from large jurisdictions and those with recent earthquake experience were similar to the overall sample. Managers from jurisdictions that had most types of "active" earthquake hazard mitigation programs were more likely to believe the uncertainty was encouraging action.

- Those from jurisdictions that had changed or canceled projects were less likely to believe uncertainty was having little or no effect (26%) and more likely to believe that it encouraged action due to concern for liability (42%).
- Similarly, those from jurisdictions with nonstructural programs were less likely to believe uncertainty was having little or no effect (17%) and more likely to believe that it encouraged action due to concern for liability (50%).
- 40% of those from jurisdictions with active land use planning programs dealing with earthquakes believed the uncertainty was having little or no effect, 20% believed it was discouraging action and 40% believed it was encouraging action.
- On the other hand, 56% of those with retrofit programs believed the uncertainty was having little or no effect, 22% believed it discouraged action and 22% believed encouraged action, a response similar to the overall sample.

Last, each was asked for his opinion on the cause of this uncertainty. Manager responses included:

- court and juries deciding cases in inexplicable ways (9 responses);
- rapidly changing law, including the erosion of immunities and the expansion of liability (8 responses);
- unclear or inconsistent court cases, laws and standards (6 responses);
- few court cases or laws on earthquakes or other natural hazards (6 responses);
- lack of awareness, understanding, or priority of earthquake hazards and mitigation to have caused officials to be concerned about uncertainty (5 responses);
- complexity of law, particularly in the areas of joint/several liability and risk/benefit calculations (2 responses); and
- the need for laws to not be too explicit (2 responses).

TOTAL MANAGER RESPONSES ON REASONS FOR UNCERTAINTY = 52

Responses from the attorneys included some similar thoughts to those of the managers, as well as some additional ideas. Several attorneys provided more than one reason for uncertainty, making the total number of responses greater than the number of those responding. The reasons for uncertainty provided included:

- court and juries deciding cases in inexplicable ways (14 responses);
- rapidly changing law, including the erosion of immunities and the expansion of liability -- "the law this week is..." (9 responses);
- unclear, inconsistent, or imprecise court cases, laws and standards (8 responses);
- lack of court cases or laws on earthquakes or other natural hazards (4 responses);
- complexity of the law, particularly in the areas of various possible immunities, the reasonableness standard, mandatory/discretionary duties and how inverse condemnation rules can supersede tort immunities (6 responses);
- a general litigious atmosphere and capricious nature of litigation (2 response);
- the uniqueness of each set of facts (2 responses); and
- lack of knowledge of legal issues (2 responses).

TOTAL ATTORNEY RESPONSES ON REASONS FOR UNCERTAINTY = 50

PERCEPTION OF LIABILITY FOR EARTHQUAKE HAZARDS

The extent to which local government officials understand liability rules related to earthquake hazards could greatly affect their impact. To gauge their understanding, all survey participants were asked whether liability would exist in **three general situations** and in **five hypothetical cases**. In all eight cases, the same scale was used:

- 1 = could definitely NOT be held liable;
- 2 = could probably NOT be held liable;
- 3 = might or might not be held liable;
- 4 = could probably be held liable; and
- 5 = could definitely be held liable.

Additional graphs showing the distribution of the responses are provided in Appendix D.

Three findings are particularly significant. First, the attorneys understood the differences in local government exposure to liability for hazards with public versus private property more clearly than the managers. This lack of understanding by non-lawyers also came through quite clearly in several of the in-person interviews. Second, the managers consistently believed that liability was more likely to exist than the attorneys. The reasons for this response were suggested by those interviewed in person.

- Attorneys are more aware of the specific immunities in the law and possible defenses. They also tend to guard these immunities jealously and admit to as little liability exposure as possible. Attorneys are also more likely to see the outcome of court cases. One attorney suggested, however, the "attorneys have an exaggerated sense of their own abilities."
- Managers see the increases in cases and the media publicity associated with cases and assume an increase in liability. Some local attorneys may be promoting this concern, however, viewing it as healthy from a risk management perspective.

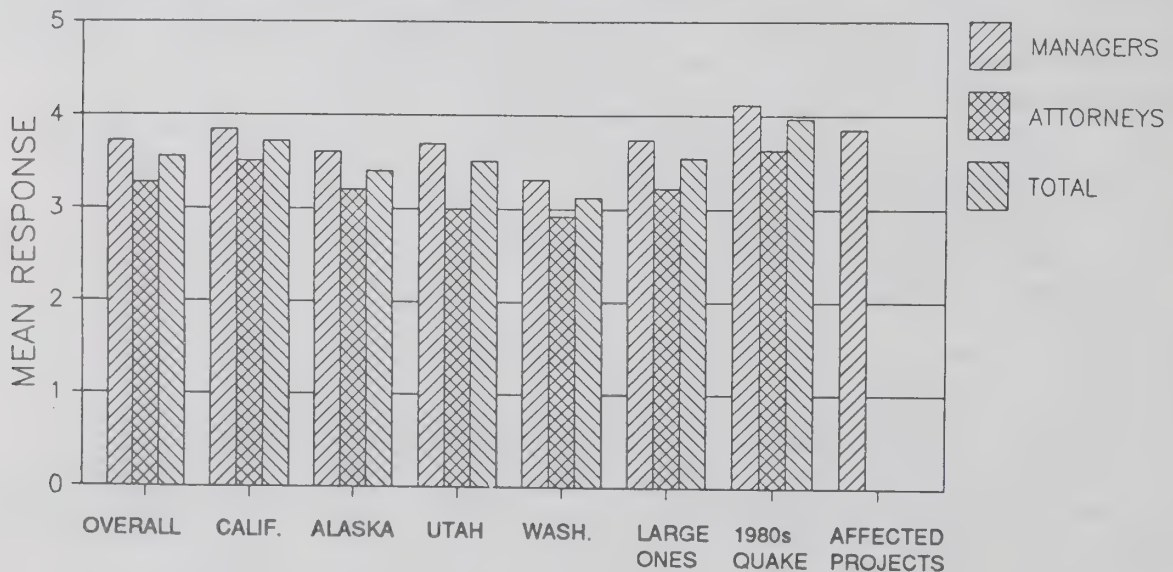
The third finding is that there is no indication that those with "active" earthquake programs see significantly more or less liability exposure than the overall sample.

GENERAL SITUATION 1 -- Liability for Public Property Hazards

First, all participants were asked, based on their knowledge of current law and recent court decisions, to what extent they thought that local governments in their state **could** be held liable for a failure to reduce known earthquake hazards on **public property**.

Most of the managers clearly leaned toward probably being held liable (m.r. = 3.7), while the attorneys were not nearly certain of liability (m.r. = 3.3). When comparing the responses from state to state, those from California were most likely to think that the jurisdiction might be held liable (m.r. = 3.7), followed by Utah (m.r. = 3.5), Alaska (m.r. = 3.4) and Washington (m.r. = 3.1). Consistently, the managers were more likely to believe that liability might exist than the attorneys. The discrepancy was smallest in California (difference in m.r. = 0.3) and particularly high in Utah (difference in m.r. = 0.7). Those from large cities felt that liability was as likely as the overall sample. However, those from jurisdictions that had experienced a damaging earthquake in the 1980s were most likely to think that liability would probably exist (m.r. = 4.0). Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were only slightly more likely to believe that liability could exist than the overall sample of managers (m.r. = 3.9 vs. 3.7).

TABLE 5: RESPONSES OF SURVEY PARTICIPANTS TO GENERAL SITUATION 1 -- RELATED TO LIABILITY FOR PUBLIC PROPERTY HAZARDS

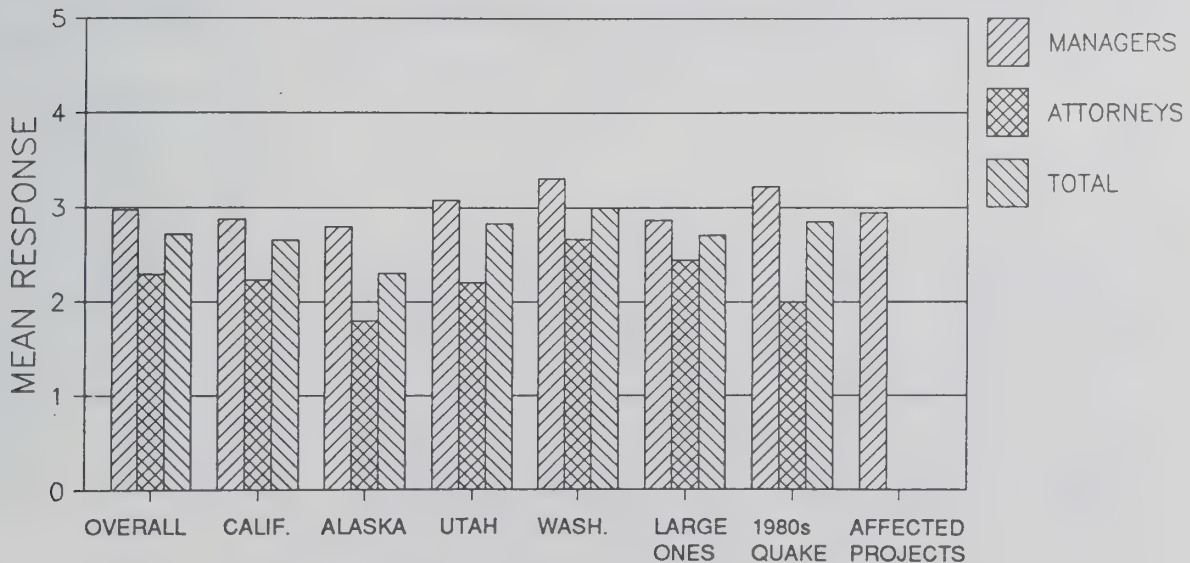


GENERAL SITUATION 2 -- Liability for Private Property Hazards

In the next question, all participants were asked, based on their knowledge of current law and recent court decisions, to what extent they thought that local governments in their state **could** be held liable for a failure to reduce known earthquake hazards on **private property** given the same scale as used in the previous situation.

Overall, and in all subcategories, this was thought to be less likely to result in liability than the first general situation. The managers thought that liability might or might not exist (m.r. = 3.0), while the attorneys believed that the local government might not be held liable (m.r. = 2.3). When comparing the responses from state to state, those from Washington were most likely to think that the jurisdiction might be held liable (m.r. = 3.0), followed by Utah (m.r. = 2.8), California (m.r. = 2.7) and Alaska (m.r. = 2.3). Consistently, the managers were more likely to believe that liability might exist than the attorneys. The discrepancy was particularly high in Alaska (difference in m.r. = 1.0). Those from large cities felt that liability was as likely as the overall sample, but the discrepancy between the managers and attorneys was smaller (difference in m.r. = 0.4 vs. 0.7). Those from jurisdictions that had experienced a damaging earthquake in the 1980s were only slightly more likely to think that liability might or might not exist (m.r. = 2.8), but the difference between the responses of the managers and attorneys was particularly large (difference in m.r. = 1.2). Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were just as likely to believe that liability could exist than the overall sample of managers (m.r. for both = 3.0).

TABLE 6: RESPONSES OF SURVEY PARTICIPANTS TO GENERAL SITUATION 2 -- RELATED TO LIABILITY FOR PRIVATE PROPERTY HAZARDS

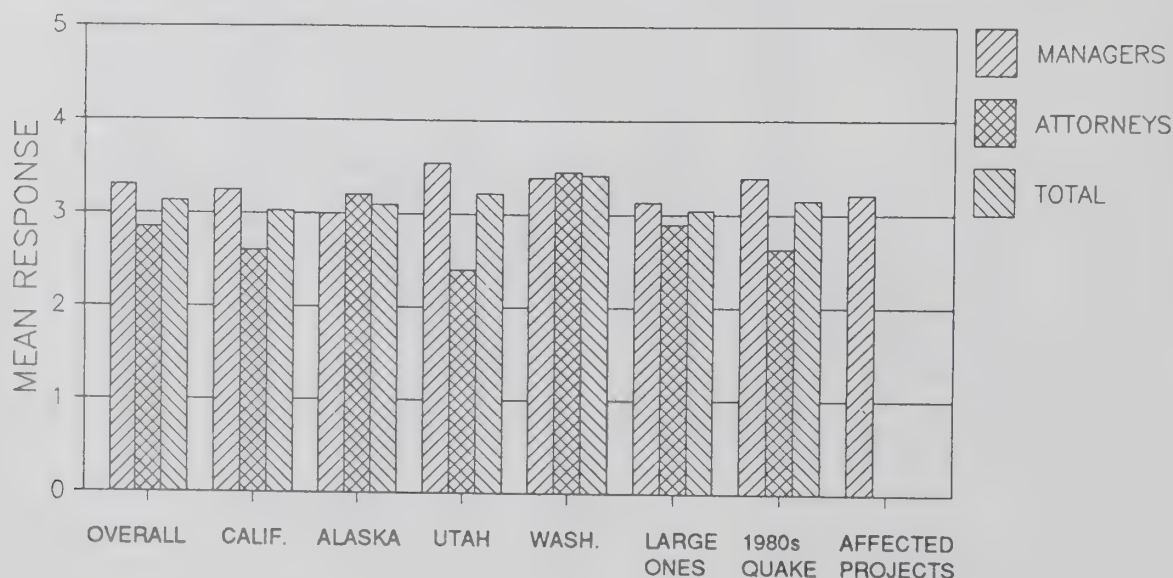


GENERAL SITUATION 3 -- Liability for Prediction-Related Activities

In the third and final general question, all participants were asked if, in their opinion, local governments in their state could be held liable for actions negligently taken or not taken pursuant to a state-sanctioned **earthquake prediction**. The responses were on the same scale as the previous two questions.

Overall, this situation was thought to be less likely to result in liability than the first general situation and more likely to result in liability than the second situation. The managers leaned toward believing that liability might exist (m.r. = 3.3), while the attorneys believed that liability might or might not exist (m.r. = 2.9). When comparing the responses from state to state, those from Washington were most likely to think that the jurisdiction might be held liable (m.r. = 3.4), followed by Utah (m.r. = 3.2), Alaska (m.r. = 3.1) and California (m.r. = 3.0). In Alaska and Washington, the managers were about as likely to believe that liability might exist as the attorneys. The discrepancy was nearer the overall sample in California (difference in m.r. = 0.6) and particularly high in Utah (difference in m.r. = 1.1). Those from large cities and those from jurisdictions that had experienced a damaging earthquake in the 1980s felt that liability might or might not exist, similar to the overall sample (m.r. = 3.0 and 3.1 respectively). However, the discrepancy between the managers and attorneys was smaller for the large cities than the overall sample (difference in m.r. = 0.2), and larger for those that had experienced recent earthquakes (difference in m.r. = 0.8). Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were slightly more likely to believe that liability could exist than the overall sample of managers (m.r. = 3.2).

TABLE 7: RESPONSES OF SURVEY PARTICIPANTS TO GENERAL SITUATION 3 -- RELATED TO LIABILITY FOR PREDICTION-RELATED ACTIVITIES



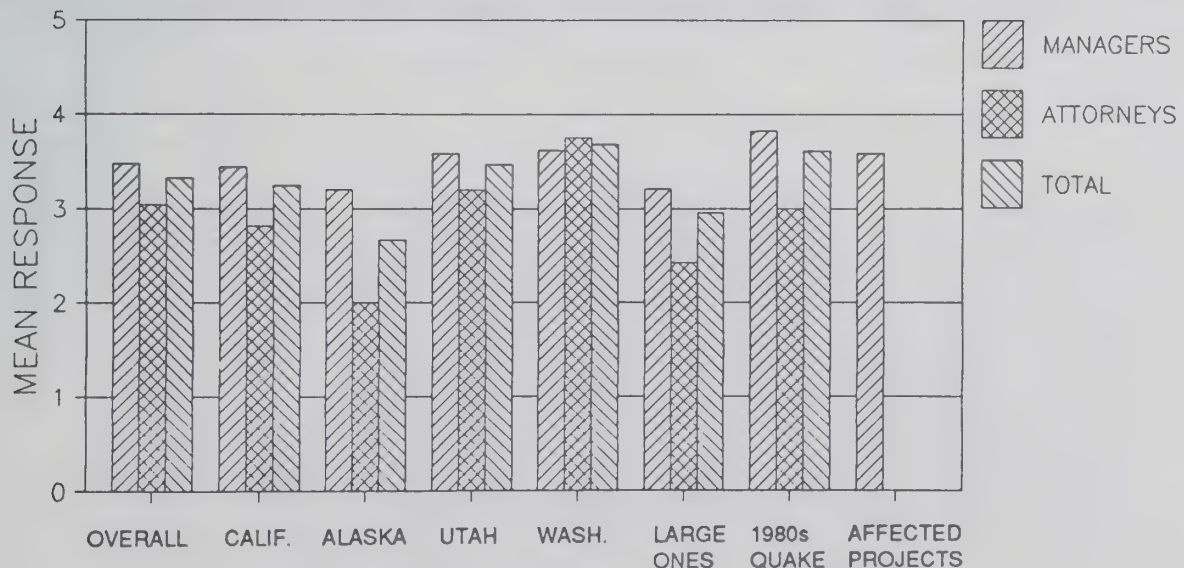
HYPOTHETICAL CASE A -- Relating to Emergency Response Training

All surveyed were asked to estimate the likelihood of local governments **in their state** being liable given the following situation related to emergency response training.

The city's written earthquake response plan includes provisions for its building inspectors to inspect buildings after an earthquake. However, they never receive training on how to do this specialized type of inspection and never participate in a disaster exercise prior to the earthquake. An earthquake occurs and some buildings that should have been condemned are not, while others that should not have been condemned, are torn down.

Most of the managers clearly leaned toward probably being held liable (m.r. = 3.5), while the attorneys were not nearly certain of liability (m.r. = 3.1). When comparing the responses from state to state, those from Washington were most likely to think that the jurisdiction might be held liable (m.r. = 3.7), followed by Utah (m.r. = 3.5), and California (m.r. = 3.1), with those from Alaska believing that liability was least likely (m.r. = 2.7). Except for Washington, the managers were more likely to believe that liability might exist than the attorneys. The discrepancy was smallest in Washington (difference in m.r. = 0.1) and particularly high in Alaska (difference in m.r. = 1.2). Those from large cities felt that liability was less likely than the overall sample and that they might or might not be liable (m.r. = 3.0). However, those from jurisdictions that had experienced a damaging earthquake in the 1980s were much more likely to think that liability would probably exist than the overall sample (m.r. = 3.6). Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were only slightly more likely to believe that liability could exist than the overall sample of managers (m.r. = 3.6 vs. 3.5).

TABLE 8: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE A -- RELATED TO EMERGENCY RESPONSE TRAINING



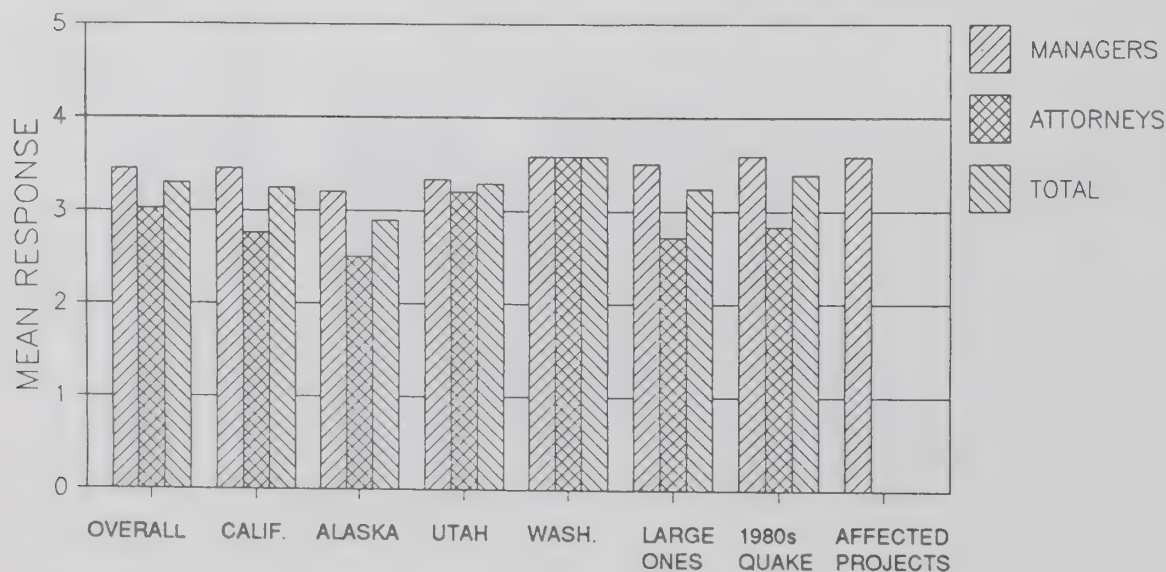
HYPOTHETICAL CASE B -- Relating to Hazardous Building Legislation

All surveyed were asked to estimate the likelihood of local governments **in their state** being liable given the following situation related to hazardous building legislation.

A local government makes the decision not to comply with a California law (SB 547) requiring local governments to identify all unreinforced masonry buildings (with certain exceptions, including single-family homes) based on fiscal constraints. The owner and his customers are severely injured in a moderate earthquake in one of these buildings. The owner claims that he would have retrofitted the building if he had been notified that a problem existed.

Most of the managers clearly leaned toward probably being held liable (m.r. = 3.4), while the attorneys were not nearly certain of liability (m.r. = 3.0). When comparing the responses from state to state, those from Washington were again most likely to think that the jurisdiction might be held liable (m.r. = 3.6), followed by Utah (m.r. = 3.3), and California (m.r. = 3.2), with those from Alaska again believing that liability was least likely (m.r. = 2.9). Consistently, the managers were as likely or more likely to believe that liability might exist than the attorneys. The discrepancy was smallest in Washington and Utah (difference in m.r. = 0 and 0.1) and highest in Alaska and California (difference for both in m.r. = 0.7). Those from large jurisdictions felt that liability was only slightly less likely than the overall sample (m.r. = 3.2). Those from jurisdictions that had experienced a damaging earthquake in the 1980s were only slightly more likely to think that liability would probably exist than the overall sample (m.r. = 3.4). Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were slightly more likely to believe that liability could exist than the overall sample of managers, as were those with retrofit programs (m.r. = 3.6 for both).

TABLE 9: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE B -- RELATED TO HAZARDOUS BUILDING LEGISLATION



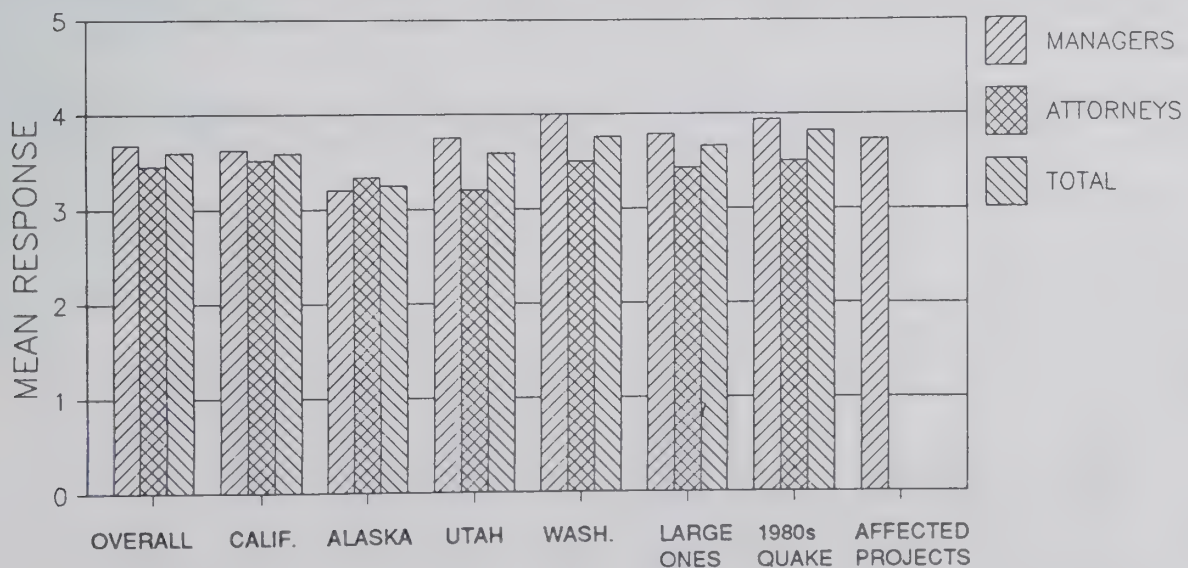
HYPOTHETICAL CASE C -- Relating to Changed Circumstances for Public Buildings

All surveyed were asked to estimate the likelihood of local governments **in their state** being liable given the following situation related to changed circumstances for existing public hazardous buildings.

A local government building is known to be a collapse hazard in an earthquake. The government funded a study 10 years ago and its consultants determined that the cost of strengthening the building was several million dollars, an amount deemed unreasonably large by the elected body. An earthquake occurs; deaths and injuries result. At the trial, expert witnesses testify that a new technology had become available 18 months before the earthquake that would have strengthened the building for a fraction of the previous estimate.

Both the managers and attorneys clearly leaned toward probably being held liable (m.r. = 3.7 and 3.5, respectively). When comparing the responses from state to state, those from Washington were most likely to think that the jurisdiction might be held liable (m.r. = 3.8), those from California and Utah were at the mean, and those from Alaska believed that liability was least likely (m.r. = 3.2). The managers were more likely to believe that liability might exist than the attorneys. The discrepancy was smallest in California and Alaska (difference in m.r. = 0.1 for both, but with the managers believing less liability existed than the attorneys in Alaska) and higher in Utah and Washington (difference in m.r. = 0.5 for both). Those from large jurisdictions felt that liability was slightly more likely than the overall sample (m.r. = 3.7). Those from jurisdictions that had experienced a damaging earthquake in the 1980s were more likely to think that liability would probably exist than the overall sample (m.r. = 3.8). Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were as likely to believe that liability could exist than the overall sample of managers (m.r. = 3.7 for both).

TABLE 10: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE C -- RELATED TO CHANGED CIRCUMSTANCES FOR A PUBLIC BUILDING



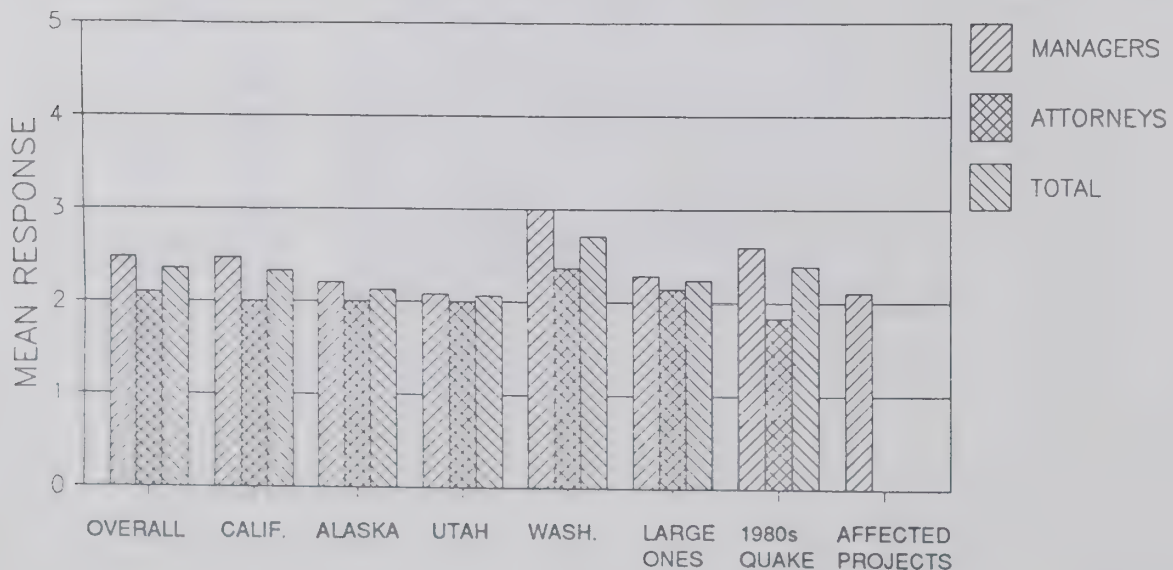
HYPOTHETICAL CASE D -- Relating to New Construction at a Problem Site

All surveyed were asked to estimate the likelihood of local governments **in their state** being liable given the following situation related to approving new private construction at a problem site.

The local government approves a residential development in an area that the developer's consultants have noted has potential problems because of the foundation materials and proximity to a known fault. The developer has modified the project by avoiding specific known hazardous locations (including an active fault trace as specified in California's Alquist-Priolo Special Studies Zones Act) and constructing smaller buildings of wood rather than concrete high rises. The buildings constructed comply with the building code in force at the time of construction. The remaining risk is thought to be acceptable. Damage and injuries occur after the earthquake in spite of these precautions.

Of the five hypothetical cases, this was the one in which any liability was thought to be least likely to exist. The managers (m.r. = 2.5) thought liability was more likely than the attorneys (m.r. = 2.1), however. When comparing the responses from state to state, those from Washington were most likely to think that the jurisdiction might or might not be held liable (m.r. = 2.7), followed by California (m.r. = 2.3), and Alaska and Utah (m.r. = 2.1 for both). Consistently, the managers were more likely to believe that liability might exist than the attorneys. The discrepancy was smallest in Utah and Alaska (difference in m.r. = 0.1 and 0.2) and highest in Washington and California (difference in m.r. = 0.6 and 0.5). Those from large cities felt that liability was slightly less likely than the overall sample (m.r. = 2.2). However, those from jurisdictions that had experienced a damaging earthquake in the 1980s were as likely to think that liability would probably exist as the overall sample (m.r. = 2.4 for both). Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were less likely to believe that liability could exist than the overall sample of managers (m.r. = 2.1 vs. 2.5). This finding is particularly significant because this situation is probably the closest to ones in which those local governments were involved. The responses of managers from jurisdictions with "active" land use regulations relating to earthquakes was similar to the overall sample (m.r. = 2.6). Finally, the responses of the managers are consistent with the overall sample of attorneys, which **may** be an indicator of contact with local attorneys on this issue.

TABLE 11: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE D -- RELATED TO APPROVING NEW CONSTRUCTION AT A PROBLEM SITE



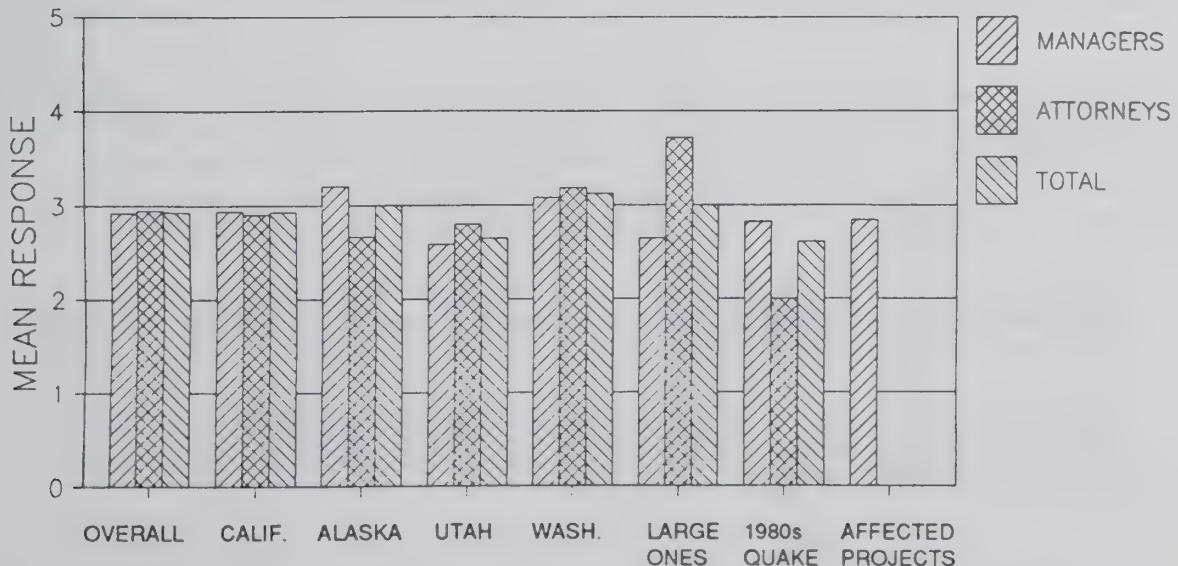
HYPOTHETICAL CASE E -- Relating to Storage of Hazardous Materials

All surveyed were asked to estimate the likelihood of local governments **in their state** being liable given the following situation related to storage of hazardous materials.

The local government has on-site storage of hazardous materials. The storage conforms to all pertinent State and local regulations. These standards do not require secondary containment facilities for above ground containers. Earthquake resistant design criteria as specified in the Uniform Building and Fire Codes have been met. A major earthquake occurs, some storage vessels rupture, and some pipelines and pipe-vessel connections fail. Some of the materials contaminate the air; others leak into storm drains, sewers and the ground. Illnesses, fish kills, and sewage treatment disruption occur due to the air and water pollution. Two months later, water supply agency monitors determine that their ground water resources have been contaminated for an indefinite period.

Both the managers and attorneys believed that the local government might or might not be held liable (m.r. = 2.9 for both). When comparing the responses from state to state, those from Washington were most likely to think that the jurisdiction might be held liable (m.r. = 3.1), followed by Alaska (m.r. = 3.0), and California (m.r. = 2.9), with those from Utah believing that liability was least likely (m.r. = 2.7). The discrepancy between the responses of the managers and the attorneys did not exist in California and was also small in Washington and Utah (difference in m.r. = 0.1 and 0.2 with the attorneys believing slightly more liability existed than the managers in both states). The difference was largest in Alaska (difference in m.r. = 0.5), with the managers believing greater liability existed than the attorneys. Those from large cities felt that liability was only slightly more likely than the overall sample and that they might or might not be liable (m.r. = 3.0), but with the attorneys believing a much greater potential for liability exists than the overall sample. On the other hand, those from jurisdictions that had experienced a damaging earthquake in the 1980s were much less likely to think that liability would probably exist than the overall sample (m.r. = 2.6), with the attorneys believing a much lesser potential for liability exists than the overall sample. Those managers from jurisdictions that had changed or canceled a project due to earthquake issues were only slightly less likely to believe that liability could exist than the overall sample of managers (m.r. = 2.8 vs. 2.9).

TABLE 12: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE E -- RELATED TO STORAGE OF HAZARDOUS MATERIALS



CONCERN FOR LIABILITY FOR EARTHQUAKE HAZARDS

The level of concern by local government officials for potential liability for earthquake hazards is one way of measuring the overall impact of tort rules on local decision making. All of the survey participants were asked a general question about concern for liability for earthquake hazards.

Close to two-thirds (66% of the managers and 60% of the attorneys) noted that they had observed concern about potential liability for earthquake hazards within their jurisdiction. It is interesting to compare this result with the response to the same question asked in a survey in 1978 when only 31% had observed any concern. Even when limiting the sample to only those jurisdictions surveyed in 1978, 62% of the managers and 66% of the attorneys had observed concern. The variation by state is large:

- 79% of those from California had observed concern;
- 70% of those from Alaska had observed concern;
- 50% of those from Utah had observed concern; and
- 28% of those from Washington had observed concern.

Of those from jurisdictions with a populations of over 300,000, 93% of the managers and only 56% of the attorneys had observed concern. Of those from jurisdictions that had experienced a damaging earthquake in the 1980s, 89% of the managers and 75% of the attorneys had observed concern. Those managers from jurisdictions that had "active" earthquake programs were more likely to have observed concern (84% of those with nonstructural programs, 73% of those with land use regulations, and 80% of those who had canceled or changed a project). However, those with retrofit programs had observed concern only as frequently as the overall sample.

For most of those responding, this lack of concern was because liability for such hazards had not occurred to policy makers as an issues (65% of the managers and 76% of the attorneys). An additional fraction noted that policy makers had been advised (or believed) that there was no real earthquake hazard or no real danger of liability (23% of the managers and 12% of the attorneys). The remaining 12% of the managers (3 respondents) and 12% of the attorneys (2 respondents) cited other reasons:

- it is a low priority (2 responses);
- the concern is for hazard reduction, not liability (1 response);
- the recent administration and staff turnover (1 response); and
- BLANK, that is, checked other with no further explanation (1 response).

One might expect that those who had observed concern for liability would rank "concern for potential liability" as higher as a motivator for action than those who had not observed concern. There was, however, no significant difference, both groups ranking concern for liability as fourth! This finding was discussed during the interviews. Three reasons for the discrepancy were provided.

- The person was responding personally when ranking the factors, but was responding whether or not he had observed concern in others when answering the question about observing concern.
- The person was responding for general natural hazards programs when ranking the factors, but was responding specifically about earthquakes when answering the question about observing concern.

- The person was noting that liability is a motivator when ranking the factors, but was noting the lack of any special concern when answering the question about observing concern.

OTHER EFFECTS OF LIABILITY

In order to obtain more detailed information on the effects of earthquake liability and its relationship to other motivating decisions, the attorneys were asked a number of questions.

General Effects of Liability

Some questions dealt with the general effects of liability, not specifically related to public safety or earthquakes.

Early in the survey, the attorneys were asked how often they had met with five different reactions to legal advice on liability issues (not specifically related to earthquakes) given a scale of:

- 1 = never;
- 2 = sometimes; and
- 3 = frequently.

The reactions and mean responses to each of the five statements are as follows.

STATEMENT #1 -- They were unaware that liability was an issue and were unconcerned about it.

The attorneys rarely met with this reaction (m.r. = 1.7).

STATEMENT #2 -- They were unaware that liability was an issue, and acted reasonably to avoid exposure.

The attorneys met with this reaction more often (m.r. = 2.3).

STATEMENT #3 -- They recognized liability as an issue, and were unconcerned about it.

The attorneys rarely met with this reaction (m.r. = 1.5).

STATEMENT #4 -- They recognized liability as an issue, and acted reasonably to avoid exposure.

The attorneys met with this reaction MOST often (m.r. = 2.6).

STATEMENT #5 -- They were impeded in the performance of their duties by an over-concern with liability.

The attorneys sometimes met with this reaction (m.r. = 1.9). However, 6% noted that this reaction occurred frequently.

Later, they were asked if, in their opinion, public officials in their jurisdiction were impeded in the performance of their duties by fear of **personal** liability given a scale of:

- 1 = not impeded;
- 2 = slightly impeded;
- 3 = moderately impeded; and
- 4 = seriously impeded.

The attorneys felt that they were only slightly impeded (m.r. = 1.9), virtually the same response as in 1978 (m.r. = 1.8).

Next, they were asked if, in their opinion, public officials in their jurisdiction were impeded in the performance of their duties by fear of **governmental** liability given the same scale as the previous question. The attorneys felt that they were still only slightly impeded, but more impeded than for fear of personal liability (m.r. = 2.2). This question was not asked in 1978.

Finally, they were asked whether they agree or disagreed with the following statement.

Potential liability is an effective deterrent to negligence on the part of local government.

Approximately half (48%) believed that potential liability is an effective deterrent to negligence on the part of local government, while most (62%) agreed with this statement in 1978. The rationales provided for both agreeing or disagreeing with this statement were quite varied and failed to fall into tidy categories. The reasons provided for agreeing with the statement were:

- officials are concerned with liability and take it into account in operations decisions (1 response);
- lawsuits cost money, even if won (1 response);
- potential liability is one of several effective deterrents (1 response); and
- to an extent, the protections available depend on money and resources (1 response).

TOTAL NUMBER PROVIDING REASONS FOR AGREEING = 4

The reasons provided for disagreeing with this statement were:

- liability influences only those actions which may or may not be negligent (2 responses);
- liability is only one of several factors influencing local government (1 response);
- local government is influenced only 25% by liability concern (1 response);
- liability can be a deterrent, but not necessarily an effective one (2 responses);
- governments are targets for loss, regardless of negligence (2 responses);
- the range of government activities are too great to avoid all negligence (1 response);
- potential liability, or fear of it, is a deterrent to clear thought on risk and safety (1 response);
- liability is so haphazard, circumstances that lead to liability are hard to predict (1 response); and
- liability is usually hindsight (1 response).

TOTAL NUMBER PROVIDING REASONS FOR DISAGREEING = 12

Effects of Liability Related to Public Safety Issues

The attorneys were also asked about liability issues and its effect on general **public safety** issues.

They were asked if, within the past 3 years, officials in their jurisdiction had **chosen not** to pursue proposed regulations or other activities which would have substantially benefited the public safety because of concern for liability exposures. Slightly over half (54%) noted that this had not occurred, the remainder (46%) noted that this had occurred occasionally, while no one noted that this had occurred frequently. [Note: one building official mentioned in an interview that he had concluded on his own that he should not develop a list of privately-owned unreinforced masonry buildings due to his concern for possible liability associated with (a) errors in the list and (b) not being able to act to mitigate the knowledge he now had of a hazard. It is important that he never talked with the city attorney's office to confirm this conclusion.]

In the following question, they were asked if, within the past 3 years, they had **counseled** their jurisdiction against policies or actions which would have substantially benefited the public safety or welfare because of concern for liability exposures. Half (51%) answered that this had not occurred, most of the remainder (45%) noted that this had occurred occasionally, and a small number (4%) noted that this had occurred frequently.

Then they were asked if they believed that the rules in their state's Torts Claims Act regarding actual notice of dangerous conditions of public property were a disincentive to the discovery and elimination of those dangerous conditions. Almost all (92%) felt that the rules were not a disincentive. Only 8% (4 attorneys) believed that the rules were a disincentive, but all four felt that this incentive was **partially** offset by the constructive notice rules.

They also were asked if they agreed or disagreed with the following statement.

Potential liability and immunities are not major factors in local governmental decisions related to hazards.

Only 35% agreed with this statement, a response similar to the 33% that agreed in 1978. The reasons provided for agreeing with this statement were:

- local government is only influenced 25% by liability concern (1 response);
- local government takes the action considered appropriate in health and safety issues (1 response);
- education on what can happen with hazard is more important than liability (1 response);
- local government wants to avoid injury and loss to people (1 response); and
- decisions are made for short-term economic or public policy reasons.

TOTAL NUMBER PROVIDING REASONS FOR AGREEING = 5

The reasons provided for disagreeing with this statement were:

- potential liability is actually a cost factor (1 response);
- local government can be severely crippled by large damage awards (1 response);
- these are factors where city-owned property is concerned (1 response);
- potential liability is one of several effective deterrents (1 response);
- one also needs interest and will to act (1 response); and
- the more you do to protect, the more likely you will be liable (1 response).

TOTAL NUMBER PROVIDING REASONS FOR DISAGREEING = 6

ROLE OF THE LOCAL ATTORNEY'S OFFICE

The in-person interviews provided extensive information on the role of the local government's attorney in decisions related to earthquakes. That role occurs in three general areas:

- hazard mitigation program development affecting private property;
- safety of public facilities; and
- in the emergency response phase after an earthquake.

In the first instance, relating to program development, the attorney's office may be:

- involved in committees set up to examine earthquake issues, while not advocating any particular response;
- asked for advice after the idea for a mitigation program surfaces to make sure that it is feasible (that is, that the city had the authority to act);
- routinely asked to review draft ordinances to make nonsubstantive changes in the wording to minimize the jurisdiction's liability exposure;
- providing advice on the implications of a possible ordinance on private property owner liability;
- brought in when a building owner affected by an ordinance complains or "refuses" to comply with the ordinance; and
- asked to review mutual aid agreements.

For those issues related to public facilities, the attorney's office may be:

- providing advice, when requested, on the liability issues associated with failure of a city-owned reservoir, city hall, or other city facility; and
- providing support for the risk manager or other department head who advocates repair or replacement of unsafe city-owned facilities.

Finally, after an earthquake, the attorney's office may be:

- kept informed of plans in the emergency situation;
- providing department heads and management with key court cases; and
- telling managers to leave a paper trail, to allow property owners to get engineers reports if at all feasible, and to get letters from owners authorizing the city to demolish buildings prior to demolition.

LIABILITY INSURANCE AND RISK MANAGEMENT

The managers surveyed were asked a series of questions on liability insurance and risk management.

Risk management consists of analyzing possible losses and determining how to handle these exposures through reducing, eliminating, or transferring (usually through insurance) the risks.*

Information was obtained on the impact of insurance and risk management on hazard reduction and awareness of liability by comparing responses to questions in the survey. Responses to direct questions relating to the relationship between insurance or risk management and hazard reduction or liability were also analyzed.

INSURANCE COVERAGE

Of the managers responding to the section on risk management, 38% indicated that their jurisdiction was self-insuring for comprehensive general liability insurance. An additional 44% indicated that their jurisdiction was in a self-insurance pool. Only 18% indicated that the jurisdiction had standard insurance with a deductible and excess liability coverage.

All managers were asked if they had been advised by their insurance carrier, pool, risk manager or attorney on appropriate caveats and disclaimers in describing risk of earthquake damage. Only 10% (8 participants) had been so advised. Those indicating that they had been provided with this advice were asked to describe "it". Five of the eight did so, but 4 of the 5 described their insurance coverage, rather than the advice, indicating that either the original question or the follow-up description question was misunderstood. Therefore, questions on the nature and type of this advice were asked in the in-person interviews. In general, the city attorney's office added the appropriate disclaimers and caveats, rather than advising staff on how to incorporate disclaimers into their work. However, general "rules of thumb" were commonly provided, including:

- use qualified professionals;
- try to leave a *paper trail*;
- try to act *reasonably*; and
- ensure that title to property in areas covered by a sensitive areas ordinance discloses pertinent problems and restrictions so that people know what they are buying.

RISK MANAGEMENT

Eighty percent of the managers indicated that their jurisdiction had an active risk management program. Among those with such a program,

- 25% had initiated the program when self-insured;
- 25% had initiated the program when in a self-insurance pool; and
- 49% (rounding error) had initiated the program when insured with a private company.

Only those NOW self-insured but who had initiated the risk management program while insured with a private company were asked how the risk management program had been affected by increased self-insurance. Most (82%) believed that the program had become more active, a few (18%) saw no significant change, and no one believed that the program had become less active.

* Based on the definition of "risk management" found in the Glossary of Insurance Terms (Edited by Thomas E. Green, 1980, Merritt Co., Santa Monica).

The survey next listed ten possible components and effects of a risk management program. The percent of programs containing each is listed in Table 14, below.

TABLE 13: RISK MANAGEMENT PROGRAM COMPONENTS AND EFFECTS

Liability exposures are evaluated and included as a factor in decisionmaking.

75% Yes
22% Sometimes
3% No

Hold-harmless or indemnity agreements are regularly reviewed.

86% Yes
11% Sometimes
3% No

Departments of the jurisdiction are held fiscally accountable for liabilities resulting from their actions.

53% Yes
47% No

The risk management program includes a loss control program aimed at reducing liability exposures for activities already under way or to be undertaken.

92% Yes
8% No

The jurisdiction holds regular classes or seminars or provides written materials to public officials and staff regarding liability.

59% Yes
41% No

A claim monitoring and review procedure to provide information for use in taking preventive or corrective measures exists.

89% Yes
11% No

The jurisdiction's cost of risk (including insurance premiums, claims cost, claims administration) has decreased since risk management was undertaken.

39% Yes
61% No
(Average reduction = Approximately 20%)

The frequency of liability claims has decreased since risk management began.

49% Yes
51% No

The severity of liability claims has decreased since risk management began.

53% Yes
47% No

The incurred losses have decreased since risk management began.

51% Yes
49% No

The number of these components and effects present are a way of gauging the relative activity of active risk management programs for subsequent analysis.

In a final question, the managers were asked to what degree the risk management program had increased the awareness of their jurisdiction's public officials and staff of liability as a factor in decisionmaking. Two-thirds felt that this had occurred to a substantial degree, 30% felt that this had not occurred too much, and only 3% felt that this had not occurred at all.

ROLE OF THE LOCAL GOVERNMENT RISK MANAGER

Some "risk managers" are not particularly effective in managing risk. One manager stated that he would not "glorify" his jurisdiction's risk management activities by calling them a program. These relatively small programs showed up in the questionnaires as having very few of the few active components listed in Table 13.

The interviews provided data showing that, in jurisdictions with truly "active" risk management programs, the risk manager has a role in earthquake safety programs. He may support the attorney's office on issues when the local government has a large liability exposure, particularly with safety problems associated with its own facilities. He is a staff member dedicated to calling for heightened safety awareness. Advice from a staff member hired specifically to provide this type of advice is important. This role is strengthened if the city attorney is on contract to the city, rather than an actual staff member. Department heads from cities with risk managers indicated that they felt that they could count on the risk manager as a "second vote" in management staff meetings in which they were calling for maintenance or repair expenditures.

INSURANCE AND RISK MANAGEMENT AS FACTORS IN HAZARD REDUCTION

In order to gain some insight on the relationship between insurance and hazard reduction, the attorneys surveyed were asked whether they agreed or disagreed with the following statement.

Jurisdictions insured against liabilities under a standard insurance policy (where the insurance company defends and pays claims and there is no deductible) are less concerned about hazard abatement than self-insuring jurisdictions.

Most (62%) disagreed, while 38% agreed. Although the responses were quite mixed, the rationales for answering in a given manner pointed toward a general consensus.

Those disagreeing felt:

- insurance (or self-insurance) are not major factors in decisionmaking (4 responses);
- insurance coverage and rates are based on loss experience (5 responses); and
- the concern for the welfare of citizens on the part of local governments is the over-riding concern (4 responses).

TOTAL NUMBER OF COMMENTS BY THOSE DISAGREEING = 13

Those agreeing with the statement explained that:

- although such jurisdictions may be slightly less concerned, insurance is not

- a major factor (1 response);
- those insured lack an incentive to act unless the premium is tied to lack of hazard abatement (3 responses); and
- jurisdictions insured by companies are not as close to the problem and may not have as active a risk management program (3 responses).

TOTAL NUMBER OF COMMENTS BY THOSE AGREEING = 7

In an additional effort to determine the nature of any relationship between insurance or risk management and hazard reduction, several comparisons will be made on the responses of the survey participants.

In general, those with "active" earthquake hazard mitigation programs were most likely to be self-insured, less likely to be in an insurance pool, and least likely to have private insurance.

- 30% of those who were self-insured had changed or canceled a project due to earthquake concerns, as opposed to 24% of those in pools and 21% of those privately insured.
- 37% of those who were self-insured had structural retrofit programs for seismic safety, as opposed to 15% of those in pools and 14% of those privately insured.
- 40% of those who were self-insured had special nonstructural requirements, as opposed to 24% of those in pools and 7% of those privately insured.
- 33% of those who were self-insured had "active" land use regulations related to earthquakes, as opposed to 12% of those in pools and 7% of those privately insured.

In addition, those with "active" earthquake hazard mitigation programs (except land use regulations) were more likely to have active risk management programs than average.

- 28% of those with active risk management programs had changed or canceled a project due to earthquake concerns, as opposed to 12% without risk management.
- 23% of those with active risk management programs had structural retrofit programs for seismic safety, as opposed to 19% without risk management.
- 31% of those with active risk management programs had special nonstructural requirements, as opposed to only 6% without risk management.
- However, 19% of those both with and without active risk management programs had "active" land use regulations related to earthquakes.

Therefore, both self-insurance and risk management are related in some way to the extent to which local governments mitigate earthquake hazards.

To gather more information on the relationship of insurance, risk management and concern for liability to earthquake mitigation programs, those interviewed in person were asked which of the three factors was most responsible for their hazard reduction programs. Approximately one-third (37%) thought that all three were of such minor concern that they could not choose among them, one-third (32%) thought that concern for liability was the most critical, one-quarter (26%) thought that risk management was the most critical, and only one jurisdiction (5%) thought that insurance was critical.

Because of the wide-spread belief that these factors were NOT critical, yet their obvious correlation with hazard mitigation, project staff searched for some other explanation for the

relationship. The conclusion was that the existence of a risk management program and of active earthquake programs are both related to the presence of progressive management and elected officials. Those jurisdictions with the most aggressive safety programs tended to have very stable bodies of elected officials. As one building inspector phrased it, "I'd hate to have to re-educate the City Council every two years." The jurisdictions with a wide variety of mitigation programs in a large number of departments tended to have a chief administrator who was highly committed to both safety in general and seismic safety. The importance of the status of the leader became clear; if the leader was a department head, his department might have aggressive earthquake programs, but if the leader was the chief administrator, several departments would have aggressive safety programs.

ATTITUDES TOWARD TORT LIABILITY

Both the managers and the attorneys surveyed were asked a series of questions aimed at determining their attitudes toward tort liability and its potential use in more effectively promoting earthquake hazard reduction.

SHOULD LIABILITY FOR EARTHQUAKE HAZARDS EXIST?

Those surveyed were asked two related questions. First, they were asked if a local government **should** be held liable if it fails to initiate corrective or preventive measures and causes or makes more likely loss of life or property damage resulting from earthquake hazards on **public property**. They were given a scale of:

- 1 = should definitely NOT be held liable;
- 2 = should probably NOT be held liable;
- 3 = depends on the situation;
- 4 = should probably be held liable; and
- 5 = should definitely be held liable.

Most managers (52%) and attorneys (60%) believed that liability depended on the situation. More managers believed that the local government definitely or probably should be liable than that it definitely or probably should not be liable (34% vs. 14%), resulting in a mean response of 3.2. On the other hand, slightly more attorneys believed that the local government should not be liable than should be liable (21% vs. 19%), resulting in a mean response of 2.9. Those from Alaska were most likely to believe that liability should be imposed (m.r. = 3.4), followed by Utah (m.r. = 3.2), California (m.r. = 3.1, the same as the overall sample) and Washington (m.r. = 2.9). Those from jurisdictions with a population of over 300,000 believed that liability should depend on the situation (m.r. = 3.0), while those from jurisdictions that had experienced a damaging earthquake in the 1980s were slightly more likely to believe that the local government should be held liable (m.r. = 3.2). Among those managers from jurisdictions with "active" earthquake programs, only those with active land use regulations were more likely to believe that liability should exist than the overall sample of managers (m.r. = 3.5 vs. 3.2).

In a second question, they were asked if a local government **should** be held liable if it fails to initiate corrective or preventive measures and causes or makes more likely loss of life or property damage resulting from earthquake hazards on **private property**. They were given the same scale as in the previous question. More managers believed that the local government definitely or probably should NOT be liable than that it definitely or probably should be liable (50% vs. 10%), resulting in a mean response of 2.5. Similarly, more attorneys believed that the local government should not be liable than should be liable (77% vs. 4%), resulting in a mean response of 1.8. Those from Alaska were least likely to believe that liability should be imposed (m.r. = 1.9), while those from Utah leaned most toward liability depending on the situation (m.r. = 2.5). California and Washington had a mean response of = 2.2, the same as the overall sample. Those from jurisdictions with a population of over 300,000 believed that local governments should probably NOT be held liable (m.r. = 2.0), while those from jurisdictions that had experienced a damaging earthquake in the 1980s were only slightly more likely to believe that local government liability should depend on the situation (m.r. = 2.3). The responses from jurisdictions with "active" earthquake programs were roughly equivalent to the overall sample (m.r. = 2.5 for those with canceled projects, 2.6 with retrofit programs, 2.3 with nonstructural programs, and 2.6 with active land use regulations).

ATTITUDES TOWARD CHANGES IN LIABILITY RULES

General Changes

All those surveyed were asked the general question:

Assuming that more local government action is desirable to reduce earthquake hazards -- which option do you think would be the most effective in encouraging such action?

The managers tended to believe that increasing liability would be more effective than decreasing it. Provided with the following three alternatives, the managers responded:

- **increasing** local government exposure to liability (45%);
- leaving **current** degree of local government exposure to liability (34%); and
- **decreasing** local government exposure to liability (21%).

The responses of the attorneys leaned strongly toward decreasing liability, with the following breakdown of responses:

- **increasing** local government exposure to liability (16%);
- leaving **current** degree of local government exposure to liability (29%); and
- **decreasing** local government exposure to liability (56%).

The responses for each of the four states surveyed were reasonably consistent with the overall sample with the exception of Alaska, where even the managers believed that decreasing liability would be more effective (40% decrease, 40% current, 20% increase). The responses of large cities and those with recent earthquake experience were also reasonably consistent with the overall sample. Among those managers from jurisdictions with "active" earthquake programs, only those with nonstructural programs varied significantly from the overall sample, with 50% favoring no change, 17% favoring increasing liability, and 33% favoring decreasing liability.

The attorneys were asked, in an open-ended question, to describe how **they** would change tort rules to increase local governments' efforts to reduce earthquake hazards.

- 20 attorneys responded by describing ways to increase immunities, particularly for actions **taken** to mitigate earthquake hazards (including warning and evacuation programs, public education, requiring seismic safety standards for buildings, inspections for earthquake hazards, land use regulations, and other *reasonable* programs not involving gross negligence)
- 10 attorneys recommended no change, often due to a perceived low level of effect of tort rules on local government behavior; and
- Only one attorney recommended an increase in liability, in this case for a **failure** to take action.

Increases in Liability

The managers and attorneys were both asked the effect of increasing liability -- if, by statute, a local government were explicitly declared liable for its failure, intentional or unintentional, to take actions to reduce earthquake hazards -- given the following scale:

- 1 = would definitely do less than now;
- 2 = would probably do less than now;
- 3 = would probably stay the same;
- 4 = would probably do more than now; and
- 5 = would definitely do more than now.

Both the managers (m.r. = 4.0) and the attorneys (m.r. = 3.8) tended to believe that the local government probably would do more than now. Interestingly, **no one** felt that the local government would **definitely** do less than now and only one person felt that the local government would **probably** do less than now. The variations of responses from state to state were minimal, with those from Washington being most likely to believe that local government would do more (m.r. = 4.0), followed by California (m.r. = 3.9, the same as the overall sample), Utah (m.r. = 3.8), and Alaska (m.r. = 3.7). The responses of those from large jurisdictions leaned more toward action (m.r. = 4.1) and those from jurisdictions which experienced recent earthquakes leaned more toward no effect (m.r. = 3.8) than the overall sample. The responses of managers from jurisdictions that had changed projects due to earthquake concerns were the same as the managers in the overall sample (m.r. = 4.0 for both).

In addition, both the managers and the attorneys were asked if they **personally** favored increased liability exposure as a means of encouraging local governments to reduce risks from earthquake hazards. Overall, 82% did **not** favor such an increase, with more attorneys (92%) being against such an increase than managers (77%). Only 5% of the overall sample favored the change, while an additional 13% favored increased liability only under limited circumstances. The situations listed by the managers included:

- when proven risks exist, as with unreinforced masonry buildings or known ground failure zones (2 responses);
- when local government is not required to fund the mitigation, such as if the state provides funding (3 responses);
- when the program requirements are reasonable (2 responses);
- for new development if data are available (1 response);
- in the building and zoning codes and inspection-related areas (1 response);
- for private property if private liability were also increased (1 response); and
- if the general public is not made aware of the increased liability exposure of local governments for it could cause problems (1 response).

TOTAL MANAGER RESPONSES DESCRIBING CIRCUMSTANCES FOR LIABILITY = 11

Circumstances that might warrant increases in liability mentioned by the attorneys include:

- for corrective, emergency response, and building laws (1 response);
- for state-mandated programs for which the local entity is reimbursed for the actual costs of the program (1 response); and
- for common or accepted risks (1 response).

TOTAL ATTORNEY RESPONSES DESCRIBING CIRCUMSTANCES FOR LIABILITY = 3

When comparing the responses from state to state, 40% of those from Alaska personally favored increases in liability, followed by Utah (29%), California (11%) and Washington (8%). Few from large cities personally favored increases in liability (9%). However, 24% from jurisdictions with recent earthquake experience personally favored such increases. While 21% of the managers

from jurisdictions that had changed projects due to earthquake concerns personally favored increased liability, this percent is smaller than for the overall sample of managers (23%).

Increases in Immunity

The attorneys were asked to "predict" the effects of two reductions in liability on local government activities specifically related to earthquake hazards.

First, they were asked: if your local government were assured of immunity for **actions taken** to reduce earthquake hazards, what would result?

- 34% believed their jurisdiction would do more;
- 66% believed it would do about the same to reduce earthquake hazards as it is doing now; and
- **no one** believed their jurisdiction would do less.

Next, they were asked: if your local government were assured of immunity for **failing to act** to reduce earthquake hazards, what would result?

- only 9% believed their jurisdiction would do more;
- 89% believed it would do about the same to reduce earthquake hazards as it is doing now; and
- 2% (1 person) believed it would do less.

Comments from Interviews

Those interviewed made several perceptive comments on the effects of changes in liability rules.

Those believing an increase would be most effective mentioned it as a way "to threaten elected officials," "to get political leaders off the dime," and "to get the management hierarchy in gear."

Those believing a decrease would be most effective were especially interested in placing the burden for privately-owned hazardous buildings more clearly on the private building owner and for providing local governments a "carrot" to act on both unreinforced masonry and other hazardous buildings.

Those believing that the liability rules should remain unchanged did so because they believe:

- people do not change their behavior based on liability;
- liability should not be used to achieve a "political" objective;
- using the legal system allows too great an element of chance to enter the decision-making process; and
- liability might be effective, but it is not an efficient mechanism for achieving change.

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APPENDIX A -- DATA ON JURISDICTIONS MAILED SURVEY FORMS

JURISDICTION	STATE	1985 POP	CITY? USED IN 1978?	ATC RISK
ANCHORAGE	ALASKA	174431	YES NO	7
FAIRBANKS	ALASKA	22645	YES YES	7
FAIRBANKS NORTHSTAR	ALASKA	53983	NO YES	7
JUNEAU	ALASKA	19528	YES YES	6
KENAI PENNINSULA	ALASKA	25282	NO YES	7
KETCHIKAN	ALASKA	7198	YES YES	7
KETCHIKAN GATEWAY	ALASKA	11316	NO YES	7
KODIAK ISLAND	ALASKA	9939	NO YES	7
MATANUSKA SUSITNA	ALASKA	17816	NO YES	7
SITKA CITY/BOR	ALASKA	7803	YES YES	7
ALHAMBRA	CALIFORNIA	64615	YES NO	7
AMADOR COUNTY	CALIFORNIA	19314	NO YES	4
ANAHEIM	CALIFORNIA	219311	YES NO	7
ANTIOCH	CALIFORNIA	42683	YES YES	7
BEAUMONT	CALIFORNIA	6818	YES YES	7
BUENA PARK	CALIFORNIA	64165	YES YES	7
CARMEL BY T SEA	CALIFORNIA	4707	YES YES	7
CARPENTERIA	CALIFORNIA	10835	YES YES	7
COACHELLA	CALIFORNIA	9129	YES YES	7
COALINGA	CALIFORNIA	6593	YES YES	7
CORONA	CALIFORNIA	37791	YES YES	7
CUPERTINO	CALIFORNIA	34015	YES YES	7
DIXON	CALIFORNIA	7541	YES YES	7
EL CENTRO	CALIFORNIA	23996	YES NO	7
FREMONT	CALIFORNIA	131945	YES YES	7
FRESNO	CALIFORNIA	218202	YES YES	7
GARDEN GROVE	CALIFORNIA	123307	YES NO	7
GLENDALE	CALIFORNIA	139060	YES NO	7
GONZALES	CALIFORNIA	2891	YES YES	7
GROVER CITY	CALIFORNIA	8827	YES YES	7
HEALDSBURG	CALIFORNIA	7217	YES YES	7
HERMOSA BEACH	CALIFORNIA	18070	YES YES	7
HUNTINGTON BEACH	CALIFORNIA	170505	YES NO	7
IMPERIAL COUNTY	CALIFORNIA	92110	NO YES	7
IRVINE	CALIFORNIA	62134	YES YES	7
LA PUENTE	CALIFORNIA	30882	YES YES	7
LOMA LINDA	CALIFORNIA	10694	YES YES	7
LONG BEACH	CALIFORNIA	361334	YES NO	7
LOS ANGELES	CALIFORNIA	2966850	YES NO	7
LOS ANGELES CO	CALIFORNIA	7477503	NO NO	7
MARIN COUNTY	CALIFORNIA	222568	NO NO	7
MCFARLAND	CALIFORNIA	5151	YES YES	7
MERCED COUNTY	CALIFORNIA	134560	NO YES	7
MILPITAS	CALIFORNIA	37820	YES YES	7
MONTEBELLO	CALIFORNIA	52929	YES YES	7

JURISDICTION	STATE	1985 POP	CITY? USED IN 1978?	ATC RISK	
MORGAN HILL	CALIFORNIA	17060	YES	YES	7
NAPA	CALIFORNIA	50879	YES	YES	7
OAKLAND	CALIFORNIA	339337	YES	YES	7
PACIFICA	CALIFORNIA	36866	YES	YES	7
PALMDALE	CALIFORNIA	12277	YES	YES	7
PALO ALTO	CALIFORNIA	55225	YES	NO	7
PASADENA	CALIFORNIA	118550	YES	YES	7
REDDING	CALIFORNIA	41995	YES	YES	3
REDONDO BEACH	CALIFORNIA	57102	YES	YES	7
RIVERSIDE	CALIFORNIA	170876	YES	NO	7
SACRAMENTO	CALIFORNIA	275741	YES	YES	5
SACRAMENTO CO	CALIFORNIA	783381	NO	YES	5
SAN BERNADINO	CALIFORNIA	117490	YES	YES	7
SAN DIEGO	CALIFORNIA	875538	YES	YES	7
SAN DIEGO CO	CALIFORNIA	1861846	NO	YES	7
SAN FRANCISCO	CALIFORNIA	678974	YES	YES	7
SAN JOSE	CALIFORNIA	629442	YES	YES	7
SAN MATEO CO	CALIFORNIA	587329	NO	YES	7
SAN RAFAEL	CALIFORNIA	44700	YES	YES	7
SANTA ANA	CALIFORNIA	203713	YES	NO	7
SANTA CLARA CO	CALIFORNIA	1295071	NO	YES	7
SANTA CRUZ CO	CALIFORNIA	188141	NO	YES	7
SARATOGA	CALIFORNIA	29261	YES	YES	7
SOLANO COUNTY	CALIFORNIA	235203	NO	YES	7
SONOMA COUNTY	CALIFORNIA	299681	NO	YES	7
STOCKTON	CALIFORNIA	149779	YES	NO	6
TEHACHAPI	CALIFORNIA	4126	YES	YES	7
TEMPLE CITY	CALIFORNIA	28972	YES	YES	7
TORRANCE	CALIFORNIA	129881	YES	NO	7
WHITTIER	CALIFORNIA	69717	YES	YES	7
AMERICAN FORK	UTAH	12564	YES	YES	5
DAVIS COUNTY	UTAH	146540	NO	YES	5
GARFIELD CO	UTAH	3673	NO	YES	3
LOGAN	UTAH	26844	YES	YES	5
NORTH OGDEN	UTAH	9309	YES	YES	5
OGDEN	UTAH	64407	YES	NO	5
OREM	UTAH	52399	YES	NO	5
PROVO	UTAH	74108	YES	NO	5
SALT LAKE CITY	UTAH	163034	YES	YES	5
SALT LAKE CO	UTAH	619066	NO	NO	5
SANDY CITY	UTAH	52210	YES	NO	5
SEVIER COUNTY	UTAH	14727	NO	YES	5
SOUTH JORDAN	UTAH	7492	YES	YES	5
SPANISH FORK	UTAH	9825	YES	YES	5
WEBER COUNTY	UTAH	144616	NO	YES	5
BELLEVUE	WASHINGTON	73903	YES	YES	5
BUCKLEY	WASHINGTON	3143	YES	YES	5
CAMUS	WASHINGTON	5681	YES	YES	3
CHELAN	WASHINGTON	2802	YES	YES	5

JURISDICTION	STATE	1985 POP	CITY?	USED IN 1978?	ATC RISK
CLALLAM COUNTY	WASHINGTON	51648	NO	YES	5
DES MOINES	WASHINGTON	7378	YES	YES	5
ELLENSBURG	WASHINGTON	11752	YES	YES	5
EVERETT	WASHINGTON	54413	YES	NO	5
GRAYS HARBOR CO	WASHINGTON	66314	NO	YES	3
KENT	WASHINGTON	23152	YES	YES	5
KING COUNTY	WASHINGTON	1269749	NO	NO	5
KITSAP COUNTY	WASHINGTON	147152	NO	YES	5
MOSES LAKE	WASHINGTON	10629	YES	YES	3
OKANOGAN COUNTY	WASHINGTON	30639	NO	YES	5
RICHLAND	WASHINGTON	33578	YES	YES	2
SEATTLE	WASHINGTON	493846	YES	NO	5
SPOKANE	WASHINGTON	171300	YES	YES	2
SUNNYSIDE	WASHINGTON	9225	YES	YES	3
TACOMA	WASHINGTON	158501	YES	YES	5
THURSTON COUNTY	WASHINGTON	124264	NO	YES	5
TOPPENISH	WASHINGTON	6517	YES	YES	3

APPENDIX B -- BACKGROUND INFORMATION ON EARTHQUAKES NEAR JURISDICTIONS INTERVIEWED

INTRODUCTION

As part of this research effort to determine the impact of tort liability on local government programs related to mitigating earthquake hazards, four general areas were selected to be visited in person. In each of these four areas, staff members from three to seven local governments and one or two insurance pools were interviewed. This appendix contains background information on those four areas related to important or recent earthquakes, as well as recent research that might have helped to trigger a reassessment of local earthquake mitigation programs. The four areas visited were:

- northern California;
- Los Angeles County, California;
- Puget Sound region, Washington; and
- Salt Lake area, Utah.

NORTHERN CALIFORNIA

For purposes of this discussion, two historic earthquakes are significant:

- 1983 Coalinga earthquake
- 1984 Hall Valley / Morgan Hill earthquake

1983 Coalinga Earthquake

The 1983 Coalinga earthquake occurred on May 2nd at 4:42 p.m. With a magnitude of 6.7, it was the largest earthquake in the Central Valley of California since the 1952 Kern County earthquake with a magnitude of 7.2. The Seismic Safety Commission's Report on the Coalinga Earthquake (Sept. 1985) summarizes the earthquake's effects:

The M 6.7 earthquake that struck Coalinga, a small town in the western San Joaquin Valley, caused, conservatively, \$31 million [\$36 million 1988 dollars] in damage. Nearly 200 people were injured, approximately one thousand left homeless. Production in the surrounding oil fields was disrupted, and downtown businesses were forced to relocate or close. As a result of earthquake damage, Coalinga was faced with rebuilding virtually the entire 12-square-block downtown business district and replacing or repairing two-thirds of its housing. ...

The earthquake convincingly demonstrated the well documented life and safety hazards associated with older, unreinforced masonry buildings. ...

Essentially unprepared for an earthquake of even moderate magnitude, let alone for the extensive damage that the M 6.7 event and subsequent aftershocks produced, Coalinga faced a series of difficulties in the post-earthquake recovery period. Problems with recovery included demolition of damaged downtown structures, which later led to controversy and lawsuits; other legal problems; dilemmas related to financing long-term recovery (as opposed to earthquake damage repairs); and controversies centering on the design of the new downtown business district.

1984 Hall Valley / Morgan Hill Earthquake

The 1984 Hall Valley / Morgan Hill earthquake occurred on April 24th at 1:16 p.m. The earthquake had a magnitude of 6.2 and an epicenter located in the lightly populated area east of Morgan Hill and about 10 miles south of downtown San Jose. Estimated damage was approximately \$10 million (\$11 million 1988 dollars). EERI devoted an entire issue of its quarterly magazine to the earthquake (May 1984) and included the following comments in the summary report at the beginning of that issue (pages 403,405):

Two homes in the Jackson Oaks subdivision of Morgan Hill suffered severe structural damage. The spectacular structural damage suffered by the two homes in Jackson Oaks can be primarily attributed to either inappropriate detailing of structural elements or poor construction practices. In the majority of homes suffering damage, the damage was non-structural in nature. This interior damage was by far the major loss to residences in the earthquake.

It is interesting to note that non-structural damage caused by the earthquake was the largest single source of dollar loss. This supports the conclusion from previous earthquake damage reports that basic precautionary measures (anchoring equipment, anchoring water heater, etc.) can go a long way toward mitigating earthquake damage. ...

Although able to cope at all times, fire department capacity would be exceeded in an earthquake of only moderately higher intensity. The overloaded telephone system was observed to have delayed fire department response.

LOS ANGELES COUNTY, CALIFORNIA

For purposes of this discussion, three historic earthquakes are significant:

- 1933 Long Beach earthquake;
- 1971 San Fernando Valley earthquake; and
- 1987 Whittier Narrows earthquake.

1933 Long Beach Earthquake

The 1933 Long Beach earthquake occurred on March 10th at 5:54 p.m. It was a moderate, but damaging event with a magnitude of 6.8.

It caused severe damage and at least 120 persons died as a direct result of the tremor. The epicenter of the shock was located several miles off shore from Newport Beach on the Newport-Inglewood fault, some 15 miles southeast of Long Beach. There was serious shaking from Newport Beach to Inglewood, a distance of almost 40 miles, and from the shore communities to Santa Ana and Huntington Park, along a band more than ten miles wide. There was destruction in areas more than ten miles from the fault in a zone several miles in width. Total damages in the shaken area amounted to some \$41 million (\$300 million 1980 dollars). Santa Ana, located more than 20 miles from the epicenter, suffered an estimated \$1 million in losses (\$7.3 million 1980 dollars) (Alesch and Petak, 1986, p. 4).

The principal building type damaged in this earthquake and the building type responsible for most of the deaths was unreinforced masonry.

In the wake of the 1933 Long Beach earthquake, ...architects and engineers urged policy makers to revise building laws and regulations to ensure that structures would be designed and built to withstand seismic [forces], insofar as that was economically feasible. There was also concern for strengthening existing buildings. ...

The concern generated by the Long Beach earthquake and the recommendations of the various organizations that studied its effects resulted in the adoption of legislation by the State of California that came to be known as the Field and Riley Acts. On April 10, 1933, the Field Act vested the Division of Architecture, California Department of Public Works, with the authority and responsibility to approve or reject plans and specifications for all public school buildings, except those specifically exempted, and to supervise their construction. The Riley Act, enacted a month later on May 23, 1933, required all buildings built after that date to be constructed under far more rigorous standards than had been previously considered necessary. On October 6, 1933, the City of Los Angeles adopted earthquake-resistant design measures in its building code for new construction. Long Beach followed suit in January, 1934.

Although the inclusion of aseismic construction standards in the Uniform Building Code, and their subsequent incorporation into municipal codes, did much to reduce the vulnerability of new buildings to the forces imposed on them by earthquakes, the Long Beach earthquake resulted in few policies and little action to mitigate the hazard posed by many thousands of pre-1934 unreinforced masonry buildings that remained throughout California (Alesch and Petak, 1986, p. 9 and 10).

1971 San Fernando Valley Earthquake

The 1971 San Fernando earthquake occurred on February 9, 1971 at 6:01 a.m. Similar to the Long Beach event, it was a moderate earthquake, but with a magnitude of 6.6.

Within seconds, 2,400 people were injured and 60 persons were dead. Extensive structural damage was inflicted by the earthquake; in the wake of the high-intensity ground shaking and surface ground rupture was \$500 million in property damage (\$1 billion 1980 dollars). The areas affected most immediately was the San Fernando Valley, located about 25 miles from downtown Los Angeles.

The seismic event produced unreinforced [masonry] building failures similar to the 1933 Long Beach quake... Almost one-half of the pre-1934 buildings that were affected by the quake suffered moderate to major damage. Some unreinforced masonry buildings in downtown Los Angeles (as far as 25 miles from the earthquake epicenter) were damaged. The majority of the persons killed occupied one of the Veterans' Hospital buildings which had been constructed prior to the 1934 seismic structural code revisions. [Author's note: this hospital was constructed with a reinforced concrete frame and unreinforced masonry infill, not bearing walls.] This event once again focused attention on the hazardous nature of the old unreinforced masonry structures.

More seismically related legislation was passed in California during the two years following the San Fernando Valley earthquake than was adopted with before the quake or since then. Among the legislation enacted was a City of Long Beach ordinance entitled "Earthquake Hazard Regulations for Rehabilitation of Existing Structures Within the City," passed on June 29, 1971. Despite the fact that it became known by engineers, architects, and public officials after 1933 that existing reinforced masonry buildings posed a significant hazard to occupants during seismic events, it took until 1971 for Long Beach to pass an ordinance to mitigate those hazards, and Los Angeles did not enact a similar ordinance until 1981, ten years after the San Fernando Valley earthquake and 48 years after the Long Beach quake (Alesch and Petak, 1986, p. 10).

The earthquake also damaged the relatively new Olive View Hospital, a county facility. Damage and partial collapse occurred at the psychiatric unit, the main hospital, and the parking structure. A major interchange collapsed and a hydraulic-fill earth dam failed, but was not overtopped. These results led to state legislation mandating retroactive earthquake-design requirements for hospitals, state and federal bridges, and dams.

1987 Whittier Narrows Earthquake

The 1987 Whittier Narrows earthquake occurred on October 1, 1987 at 7:42 a.m. The earthquake, a magnitude 5.9 event, had an epicenter approximately 2 miles north of the Whittier Narrows. It was followed by a large 5.3 magnitude aftershock on October 4th at 3:59 a.m. A total of eight people died as a result of the earthquake, including five from heart attacks. Preliminary estimates indicate that at least 200 people were treated on an emergency basis for injuries.

Thirty-seven cities, as well as unincorporated areas in Los Angeles and Orange Counties, experienced damage... [Of the \$358 million in damages, \$349 million occurred in Los Angeles County and the cities in that county.] Approximately 10,000 buildings in the region were damaged as a result of the October 1 earthquake with additional damage occurring after the largest aftershock on October 4. Structural damage was primarily to unreinforced masonry commercial buildings, wood frame homes, apartment buildings, mobile homes and concrete frame structures. Significant nonstructural damage occurred and lifelines were also impacted by the earthquake (California Office of Emergency Services, 1988, p. 7).

PUGET SOUND REGION, WASHINGTON

For purposes of this discussion, two historic earthquakes are significant:

- 1949 Olympia earthquake; and
- 1965 Seattle earthquake.

In addition, during the past few months, geologists have published research indicating that much larger earthquakes are possible in the Puget Sound area.

1949 Olympia Earthquake

The 1949 Olympia earthquake occurred on April 13, 1949 at 11:55 a.m. This earthquake had a magnitude of 7.1 and an epicenter between Olympia and Tacoma. It was felt over 150,000 square

miles and caused damage of approximately \$25 million (\$123 million 1988 dollars). Eight people died as a result of the earthquake, four directly from falling masonry. The U.S. Coast and Geodetic Survey (USC&GS) summarized the effects in its publication, United States Earthquakes - 1949 (1951, p. 20):

Maximum intensity VIII was reported for an unusually large distance, about 85 miles, and mainly on soft ground with a high water table. ... A school, church, and library were condemned and widely separated schools were seriously damaged. In Olympia eight capitol buildings were damaged with a loss of 2 million dollars. Elsewhere heavy property damage was caused by falling parapet walls, toppled chimneys, and cracked walls.

Public utilities suffered seriously when water and gas mains were broken and electric and telegraph services were interrupted. Railroad service into Olympia was suspended for several days, and railroad bridges south of Tacoma were thrown out of line, delaying traffic for several hours.

A large portion of a sandy spit jutting into Puget Sound north of Olympia disappeared during the earthquake. Near Tacoma a tremendous rockslide involving a half-mile section of a 300-foot cliff toppled into Puget Sound. One 23-ton cable saddle was thrown from the top of the Tacoma Narrows bridge tower, causing considerable damage.

1965 Seattle Earthquake

The 1965 Seattle earthquake occurred on April 29, 1965 at 7:28 a.m. This earthquake, with a magnitude of 6.5, occurred between Tacoma and Seattle. It was felt over 130,000 square miles and caused damage of approximately \$12.5 million (\$46 million 1988 dollars). Seven people died as a result of the earthquake, three from falling debris and four from heart failure. The USC&GS summarized the effects in United States Earthquakes -- 1965 (1967, p. 35):

Building damage was generally light, although it was spectacular in many cases. Total collapses did not occur as far as is known to the authors. In general, damage patterns repeated those of the 1949 shock. Buildings which apparently had been damaged in 1949 often sustained additional damage in 1965. This reoccurring earthquake damage was sometimes intermixed with preearthquake settlement cracks which opened wider or caused failure in the 1965 earthquake. ...

Performance of the wood-frame dwellings was almost always excellent, and when damage occurred it was confined to plaster cracking and to unreinforced brick chimney failure at, or above, the roof line. ... As a rule, wood-frame dwelling damage rarely approached as much as 5 percent of the building value. ... One exception to the foregoing rule was unit masonry veneered wood-frame structures, particularly brick veneer. ...

Multi-story buildings generally had slight or no damage, with the damage reported to new and to old structures. ...

Unreinforced brick-bearing wall buildings with sand-lime mortar, as usual, bore the brunt of the damage. ... Numerous instances of parapet and gable failure occurred, and death and injury resulted from this type of damage. ...

Modern buildings which were designed and constructed to be earthquake resistive performed well, as indeed they should in a moderate earthquake. Not all modern structures performed well ... A one-story warehouse, having a precast prestressed reinforced concrete roof and precast concrete tilt-up walls with poured-in-place pilasters, had no anchorage between the roof diaphragm and its end shear wall. The roof moved back and forth over the end shear wall, damaging the side walls.

Geologic Research on Subduction Zone Earthquakes in the 1980s

No earthquake in the past 150 to 200 years in the states of Washington or Oregon has exceeded magnitude 7.5. For many years, larger earthquakes were not anticipated in these areas. However, recent research by the U.S. Geological Survey and others has indicated that a subduction zone earthquake similar to the 1964 Alaska earthquake or the 1985 Mexico City earthquake is possible in the subduction zone extending from Cape Mendocino on California's coast to central Vancouver Island in British Columbia and through the Puget Sound area.

Heaton and Hartzell of the U.S. Geological Survey, Pasadena, wrote a paper published in the April 1987 issue of *Science* that the Cascadia Subduction Zone may be locked and energy could be released in a great earthquake with a wave magnitude of 9.5 (similar to the 1960 Chilean earthquake). Such an earthquake would have an average recurrence interval of once every 500 or more years. Brian Atwater, of the U.S. Geological Survey and working at the University of Washington in Seattle, in the May 1987 issue of *Science*, discusses evidence that at least six great earthquakes have affected the outer coast of Washington in the last 7000 years. Gary Carver and Raymond Burke of Humboldt State University presented a paper at the October 1987 meeting of the Geological Society of America documenting that an earthquake similar in size to the 1906 San Francisco earthquake occurred in the Pacific Northwest approximately 350 years ago.

SALT LAKE AREA, UTAH

The area has not experienced any significant recent earthquakes in its heavily populated area. However, several related events have occurred in the last five to ten years that may have served as triggers for local governments to initiate or re-examine local earthquake programs in the area. For purposes of this discussion, three events are significant:

- U.S. Geologic Survey earthquake research program;
- high snowmelt conditions of 1983 and 1984; and
- 1983 Borah Peak, Idaho earthquake.

U.S. Geological Survey Earthquake Research Program

The U.S. Geological Survey has undertaken an intensive study of earthquake hazards in the Wasatch fault zone. Lund (1987) provided information on results of paleoseismic trenching along that fault zone which have enabled researchers to make estimates of the "composite recurrence interval" or CRI of earthquakes. Such recurrence intervals "pertain to entire faults and the occurrence of earthquakes anywhere along their length." He notes:

In 1984, Schwartz and Coppersmith reported a CRI [for the Wasatch fault zone] for the past 8 ka [thousand years] of 400-600 years with a preferred interval of 444 years. Incorporation of data acquired since 1985 results in a CRI for the last 6 ka [thousand years] (period of most reliable data) of 255-435 years with a preferred interval of 310-350...

Net tectonic displacement (NTD) and length of horizontal ground rupture (segment length) are commonly used to estimate the magnitude of past earthquakes. Schwartz and Coppersmith (1984) introduced the idea of "characteristic" earthquakes for the WFZ [Wasatch fault zone] based on their observation that the amount of NTD for individual paleoearthquakes measured at a point along the fault repeated during successive events. Most of their measurements ranged from 1.7-2.6 m, and averaged about 2 m per event. They concluded that similarity in displacement indicates similarity in earthquake magnitude, and that most past earthquakes on the WFZ [Wasatch fault zone] clustered around a maximum magnitude of 7-7.5. Recent trench studies show that the NTD for a single event on the WFZ [fault zone] can be as large as 4.5-4.75 m (Lund and Schwartz, 1987). However, that is the maximum recorded, and most new measurements have been between 1.5 and 3.0 m, close to the value suggested by Schwartz and Coppersmith (1984).

The 1986-1987 trenching programs emphasized some limitations associated with paleoseismic investigations on the WFZ. Trenches only expose evidence of past earthquake that resulted in displacement at the ground surface. The threshold for ground rupture in western Utah appears to be in the 6-6.5 magnitude range... The 1934 Hansel Valley earthquake (M 6.6) is the only historic earthquake known to have produced surface displacement in Utah, although other earthquakes of similar magnitude (Pocatello Valley M 6.0; Richfield M 6.5+) have occurred. Because ground shaking and related phenomena associated with a M 6-6.5 event can do considerable damage in urban areas, regardless of ground rupture, a moderate-size earthquake represents a significant, and as yet largely unevaluated, hazard to the Wasatch Front. The inability to recognize non-surface rupturing events in trenches, forces us to rely on limited historical data when trying to determine the future likelihood of similar events. In addition, trenches on the WFZ have shown little evidence of small surface-faulting earthquakes producing less than a meter of displacement. It is unclear if such events are rare in the geologic record, or if all indication of their existence is destroyed by scarps of younger, larger earthquakes.

Additional research on the East Great Salt Lake fault "suggests an average recurrence interval of about 4,000 years for each segment of the ...fault" for characteristic earthquakes of a maximum magnitude 7.5 (Pechmann, 1987).

High Snowmelt Natural Emergencies

In the last five years, the Salt Lake Area of Utah has experienced two other natural emergencies. Jerald S. Lyon, Deputy City Engineer for the Salt Lake City Department of Public Works, describes these events and how they contributed to Salt Lake City's Seismic Upgrade Program in a recent article (Wasatch Front Forum, Autumn-Winter 1987).

In May of 1983, Northern Utah experienced the trauma of a major natural emergency. Heavy, late-spring snows combined with an unusually warm period produced much larger than normal snowpack runoff from the mountains. As the affected communities fought the flood waters, several points became very clear. Even though most communities had emergency plans, much spur of the moment planning and decision making was required. Coping with an unfamiliar situation, while under the pressures dictated by its emergency nature, sometimes exposed response personnel to a steep learning curve. The value of having adequate

equipment and resources in readiness to effectively deal with the situation was clearly demonstrated. Most importantly, it became apparent that the sheer size of a natural emergency makes human efforts to cope with it seem quite inadequate.

In the months that followed the 1983 floods, Salt Lake City evaluated its emergency plan in light of the lessons that had been learned. The evaluation was not limited to a flood response, but looked at all types of emergencies that the needed responses to them. Following the evaluation, the plan was modified.

The value of this preparation became clear in the spring of 1984 when snowmelt runoff matched the 1983 flows. Because Salt Lake City was ready with better equipment and techniques, very little flooding occurred and very little inconvenience to the public resulted. Adequate planning and preparation was the key to successful emergency management.

Salt Lake Area Impact of the 1983 Borah Peak, Idaho, Earthquake

Mr. Lyon, in the same article which described the impact of the 1983/4 snowmelts, described the impact of the magnitude 7.3 Borah Peak, Idaho, earthquake of October 28, 1983 on the Salt Lake area, approximately 250 miles to the south.

Close on the heels of the 1983 floods, and in the midst of the review of the City's emergency plans, the Borah Peak earthquake occurred... While this earthquake was hundreds of miles from Salt Lake City, its effects were felt [t]here. The Salt Lake City & County Building was so strongly shaken by the earthquake that it had to be evacuated immediately following the event. The building sustained extensive masonry cracking. Personnel were allowed to return only after an inspection showed no serious damage or unsafe conditions. But the building proved to be vulnerable to long-period ground motion. It was clear that the seat of both city & county government was seriously at risk from earthquakes that might occur far outside the Salt Lake Valley. The City & County Building was not the only government building affected by the Borah Peak event. Only a block away, precast exterior panels cracked in the Metropolitan Hall of Justice. Since this building houses the Salt Lake City Police Department and the Salt Lake County Sheriff's Department, there was concern for their ability to function efficiently in the aftermath of a major earthquake.

There are similarities in the geologic setting of the earthquake to Utah's Wasatch Front. Those similarities include, according to Don Mabey (UGMS Survey Notes, Winter 1985):

1. A large mountain range ... on the east side of an intermountain valley rises abruptly about 6,000 feet above the valley.
2. A fault scarp with strong evidence of recent movement lies along the base of the range and the faceted range front indicates that faulting is the primary cause of the relief between the valley and the range.
3. The range front is not a continuous linear feature but is segmented into several units.
4. The range is made up primarily of pre-Tertiary rocks that have been involved in major Mesozoic overthrusting.
5. There is no evidence of Holocene volcanic activity.

In addition to the geologic similarities between the Salt Lake area and southern Idaho, both areas are largely inhabited by members of the LDS Church (the "Mormons"). Strong religious, cultural and family ties exist between the two areas.

The 1985 Mexico City earthquake served to reinforce the idea in the public's mind that areas of high lake basins could be subject of strong ground shaking. The coincidence that Mexico City was 250 miles away from that earthquake's epicenter and that Salt Lake City was about 250 miles away from the epicenter of the Borah Peak earthquake (yet still experienced damage) also was noted.

APPENDIX C -- BACKGROUND INFORMATION COLLECTED DURING THE IN-PERSON INTERVIEWS ON EARTHQUAKE MITIGATION PROGRAMS

RELATED TO STRUCTURAL MITIGATION

In the interviews, follow-up questions were asked related to the responses in the mailed questionnaires on the four questions on structural mitigation.

Project staff interviewed 4 of the 11 jurisdictions which had noted the existence of "special building design requirements." In two cases, the standards were actually only those contained in the UBC. In a third case, the requirements were for rehabilitation of existing buildings. In the fourth case, the requirements were for both rehabilitation of existing buildings and for new construction. If one assumes that any jurisdiction with rehabilitation requirements for existing buildings should have noted that this program existed, then an additional six jurisdictions that were interviewed should have indicated that this program existed. Alternatively, if one assumes that the program should have been checked only by those with special requirements for new construction, then only one of the three jurisdictions that noted this program should have done so and one additional jurisdiction that was interviewed should have indicated that this program existed. Therefore, the responses to this question are NOT sufficiently accurate to be useful in correlations with responses to later questions.

Project staff interviewed 3 of the 6 jurisdictions which had noted the existence of a "building inspection program." Only one of the three had performed a fairly comprehensive inspection of potentially hazardous public and private buildings. The program of another of the three was limited to that city's own public facilities and a historic district. The program of the third was actually a reference to a parapet ordinance more appropriately listed elsewhere. In addition, project staff determined from the interviews that four other jurisdictions have undertaken massive building inventories as a precursor to adoption of a hazardous building retrofit requirement that did not note that this program existed. Although the responses to this question are not sufficiently accurate on their own to be used in later analysis, they may be a useful supplement to the responses to the "hazardous building retrofit/abatement program" question.

Project staff interviewed 7 of the 9 jurisdictions that noted the existence of a "hazardous building retrofit/abatement program." Five of the seven actually had such programs. For the sixth, a county, the respondent had misunderstood the question and had thought that we wanted to know about a city in their county that they believed had such a program. The seventh was referring to the standard retrofit requirements of the Uniform Building Code. In the course of the interviews, it was also discovered that two additional cities should have indicated that they had such programs. However, these two programs were quite small. In general, the responses to this question appear to be sufficiently accurate to be useful in correlations with responses to later questions, particularly if those indicating the existence of a building inspection program are given some credit for having a hazardous building retrofit/abatement program.

Project staff interviewed one of the 2 jurisdictions which had noted the existence of a program to "post signs on dangerous structures." The posting program was instituted following a recent earthquake and related to structures made uninhabitable by that event. Given the specialized nature of this program, it is NOT appropriate to use the responses to this question in further correlations with responses to later questions.

RELATED TO NONSTRUCTURAL MITIGATION

Project staff interviewed 3 of the 6 jurisdictions which had noted the existence of "special requirements for nonstructural components." Two of the three had strong nonstructural programs. The third was referring to a requirement for bracing parapets and appendages, which was typically described as part of a local retrofit ordinance. In the course of the interviews, the project staff did not discover any other cities with strong nonstructural requirements. The responses to this question appear to be sufficiently accurate to be useful in correlations with responses to later questions.

RELATED TO LAND USE AND STUDY REGULATIONS FOR "SENSITIVE AREAS"

Seven questions were asked in the mailed questionnaire related to land use and study regulations related to "sensitive areas." Follow-up questions were asked during the in-person interviews on each of these topics.

Almost the same number of jurisdictions noted that they had a requirement for "soils studies" relating primarily to earthquake concerns (15) as noted that they had a requirement for "geotechnical studies" (16). A comparison between the two responses revealed that 9 jurisdictions had only one of the two study requirements, while 11 jurisdictions had both. ABAG staff interviewed 4 of the 9 jurisdictions that had noted that they had only one of the two. Two of the jurisdictions interviewed study requirements for hillside areas not specifically related to earthquakes. The other two were referring to California's Alquist-Priolo Special Studies Zones requirements for studies in areas adjacent to active faults. (However, the overall consensus of those responding to the survey could not have been that it was referring to the A-P Zone requirements because 22 of the 49 California jurisdictions which responded to the survey contained A-P Zones and only 7 of those noted that one of these studies related primarily to earthquakes.) ABAG staff also interviewed 3 of the 11 jurisdictions that noted the existence of both studies. All 3 had an innovative "sensitive areas" administrative procedure or ordinance which included earthquake issues. However, 3 other jurisdictions had such a program, yet had not indicated the existence of either study requirement. Given the apparent confusion on what these two questions were asking, the responses are inappropriate to use in analysis of correlations with later responses.

ABAG staff interviewed 5 of the 8 jurisdictions which indicated that they had "disclosure requirements about earthquake hazards." In 2 of the 5 cases, the disclosure requirement related to Alquist-Priolo Special Studies Zones (as required by state law in California). Again, it should be noted that 22 of the California jurisdictions contained Alquist-Priolo zones and only 3 of those had noted special disclosure requirements. The other 3 of the 5 cases interviewed were referring to disclosure requirements related to a "sensitive areas" ordinance which included earthquake hazard analysis. As with the question on special study requirements, the apparent confusion on what these questions were asking makes the responses NOT appropriate for use in correlations with later responses.

ABAG staff interviewed 3 of the 8 jurisdictions which noted "special land use or zoning restrictions" related to earthquakes. All three were referring to a "sensitive areas" ordinance which included earthquake hazards. However, other jurisdictions described such ordinances in the in-person interviews and did not note that this program existed in their mailed survey response. In general, the responses to this question are the most accurate measure of an earthquake program with an active land use planning component. However, the total program criteria described in the main body of the report is a more accurate measure of this type of program.

Although 37 jurisdictions indicated that they had reconstruction/redevelopment plans, no one indicated that these plans related to seismic safety. Therefore, the responses to this question is of no use in developing a list of jurisdictions with "active earthquake programs.

ABAG staff interviewed 4 of the 6 jurisdictions with noted "procedures for reviewing proposed new developments." One of the 4 was referring to requirements for the Alquist-Priolo zones. Again, given the 22 California jurisdictions in these zones, the response is misleading. The other 3 of the 4 interviewed were referring to their "sensitive areas" ordinance described in the question related to land use and zoning. The earlier question was a better indicator of the existence of this program, however.

ABAG staff interviewed several of the jurisdictions which noted the existence of a "safety (including seismic safety) element." Staff interviewed 3 of the 15 California jurisdictions with such elements. Two of the three had seismic safety elements which had served as a basis for hazardous building retrofit ordinances. The third apparently had an average safety element. Staff also interviewed both of the Washington jurisdictions which had indicated that this element related primarily to seismic safety. Both had developed "sensitive areas" ordinances which dealt primarily with other geologic concerns (settlement and landsliding). One of the two also dealt with liquefaction. Neither were an "element" of the local general plan. Finally, staff interviewed both Utah jurisdictions. Both jurisdictions did, in fact, have seismic safety elements. Given the numerous problems with the responses to this question, their use in future correlations is NOT appropriate.

Therefore, of the seven questions asked in this area, no single question, on its own, was an accurate indicator of whether or not the planning department was actively involved in earthquake mitigation. However, the TOTAL of these programs said to be in existence, along with whether or not the jurisdiction knew of a development project that had been canceled or significantly changed due to earthquake concerns, was an accurate indicator of an active program. Specifically, if the TOTAL positive responses to these eight questions was three or more, the program was truly active, while if the TOTAL was less than three, it was not.

BACK-UP DATA AND RECORD STORAGE

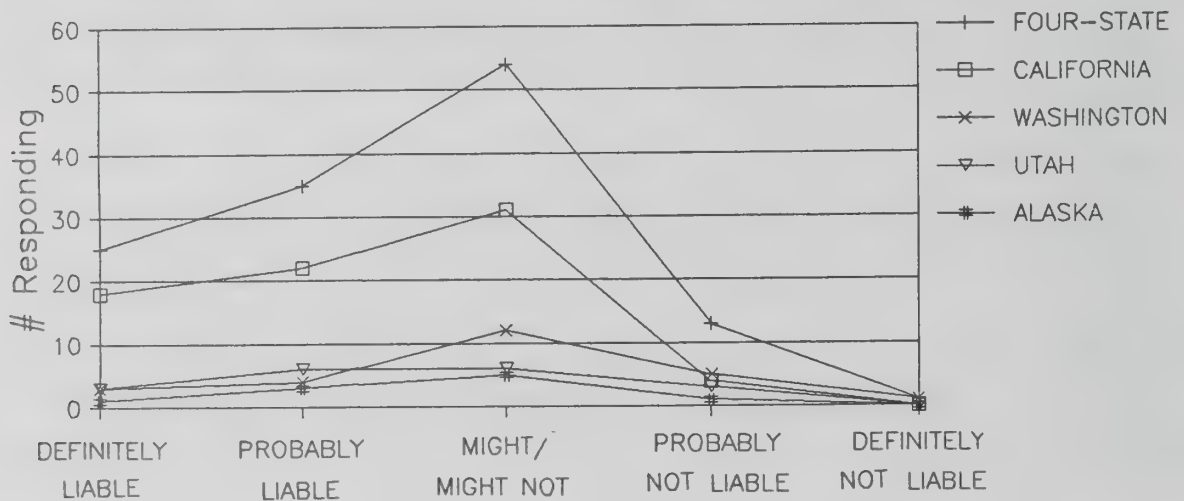
ABAG staff interviewed one of the 3 jurisdictions which indicated that it had "back-up data or record storage" related to earthquakes. No special techniques were actually used. The responses to this question therefore are NOT useful.

EMERGENCY RESPONSE PLANNING AND PUBLIC EDUCATION

There was a great deal of similarity in the jurisdictions that had a "disaster response plan" and those with a "public information and education" program dealing with earthquakes. In almost all cases, both programs were run by the local fire department. Slightly more jurisdictions (21 vs. 17) indicated that their public information program dealt primarily with earthquakes than indicated that their disaster response program had earthquakes as a major focus. ABAG staff interviewed 6 jurisdictions appearing on both lists and one with only a public information program. Although all 6 jurisdictions which had indicated that they had emergency response programs with a strong earthquake component, at least 6 additional jurisdictions which were interviewed also should have checked that this program existed. The problem was the opposite with the responses to the public education program question. Of the 7 jurisdictions interviewed which had checked that this program existed, only 4 actually had "active" public information programs. Therefore, neither set of responses is appropriate for use in correlations later in this analysis.

APPENDIX D -- RESPONSE DISTRIBUTION DATA FOR HYPOTHETICAL SITUATIONS FROM THE QUESTIONNAIRES

**TABLE D1: RESPONSES OF SURVEY PARTICIPANTS TO GENERAL SITUATION 1 --
RELATED TO LIABILITY FOR PUBLIC PROPERTY HAZARDS**



**TABLE D2: RESPONSES OF SURVEY PARTICIPANTS TO GENERAL SITUATION 2 --
RELATED TO LIABILITY FOR PRIVATE PROPERTY HAZARDS**

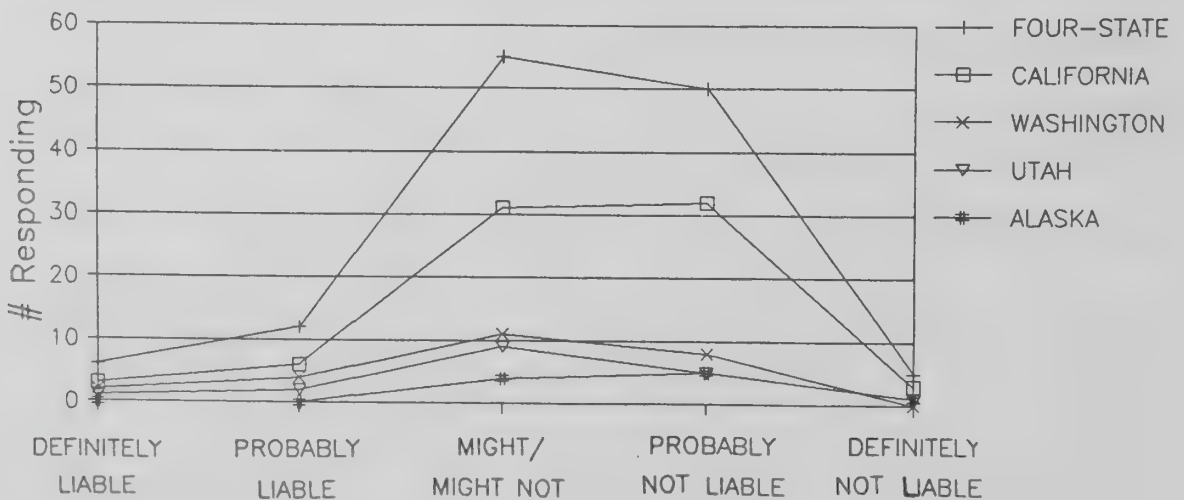


TABLE D3: RESPONSES OF SURVEY PARTICIPANTS TO GENERAL SITUATION 3 -- RELATED TO LIABILITY FOR PREDICTION-RELATED ACTIVITIES

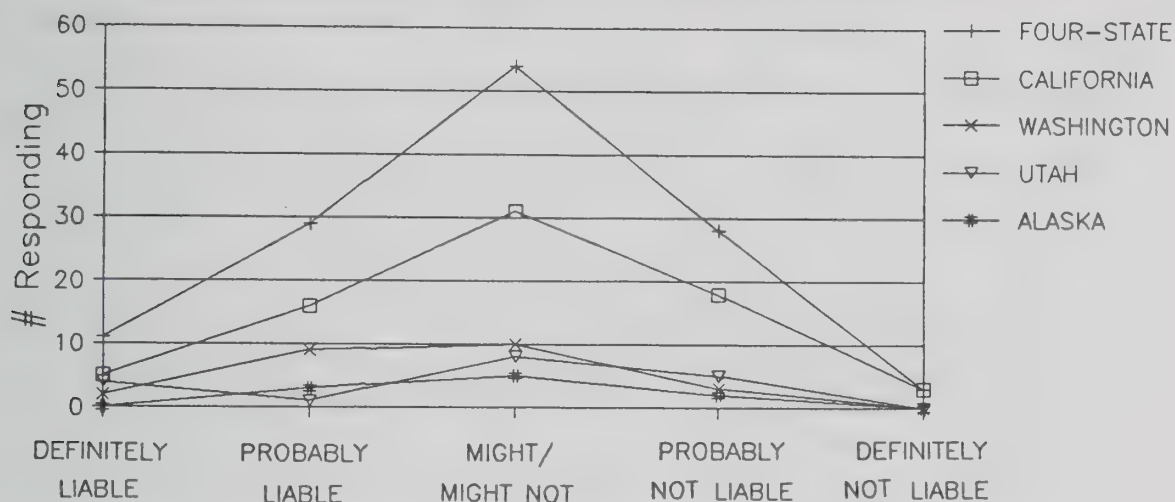
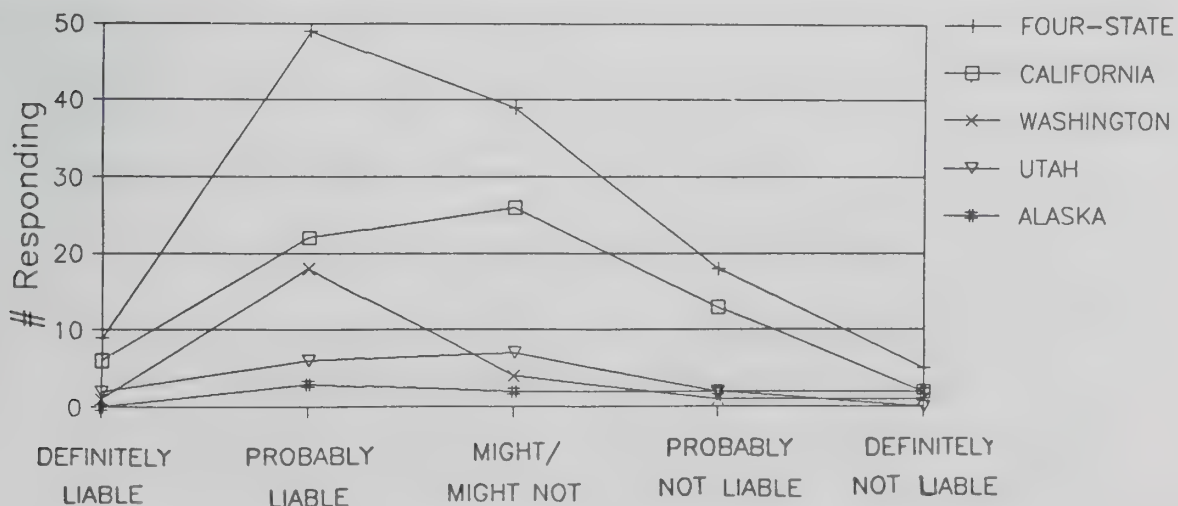
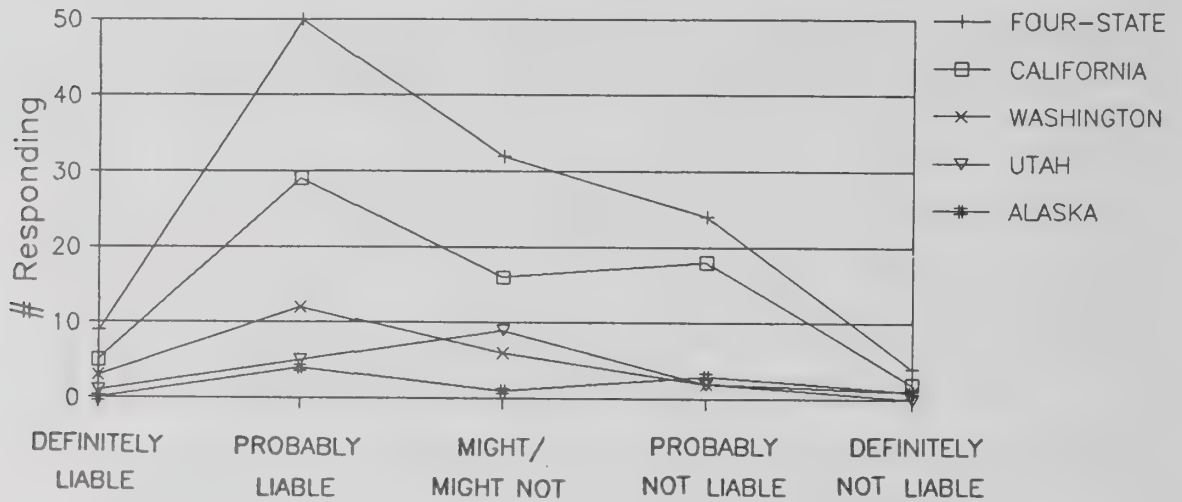


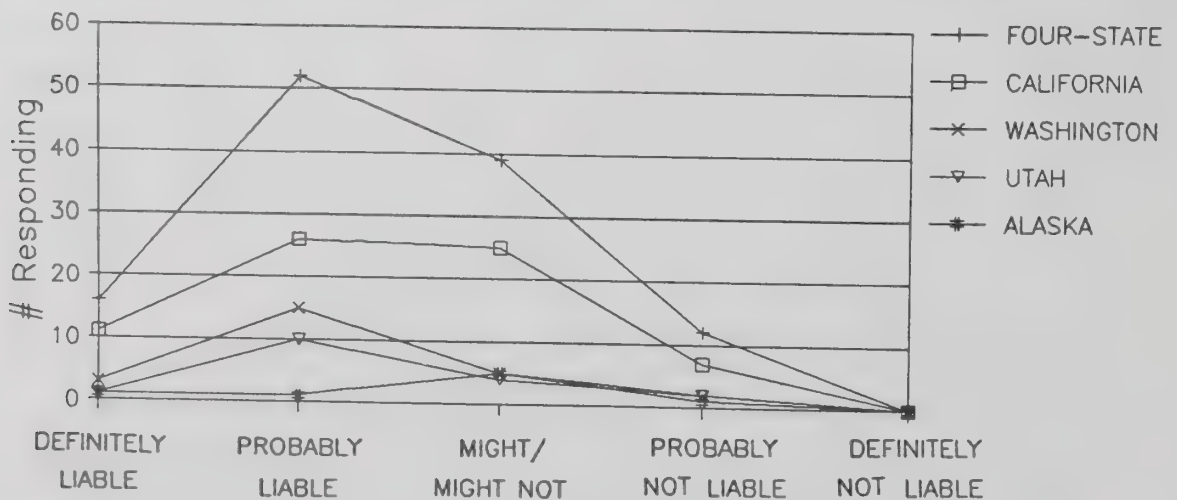
TABLE D4: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE A -- RELATED TO EMERGENCY RESPONSE TRAINING



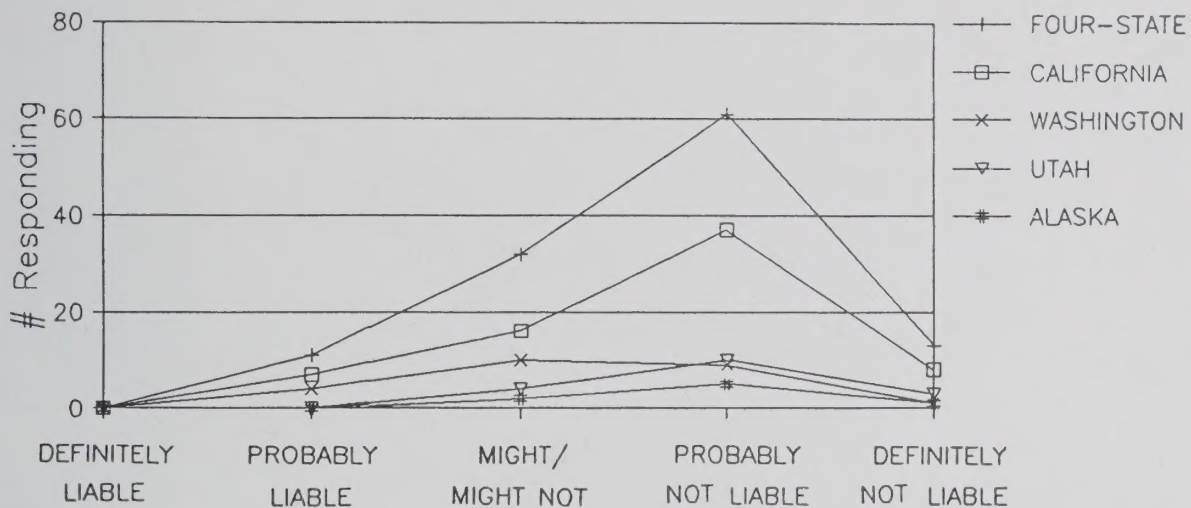
**TABLE D5: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE B --
RELATED TO HAZARDOUS BUILDING LEGISLATION**



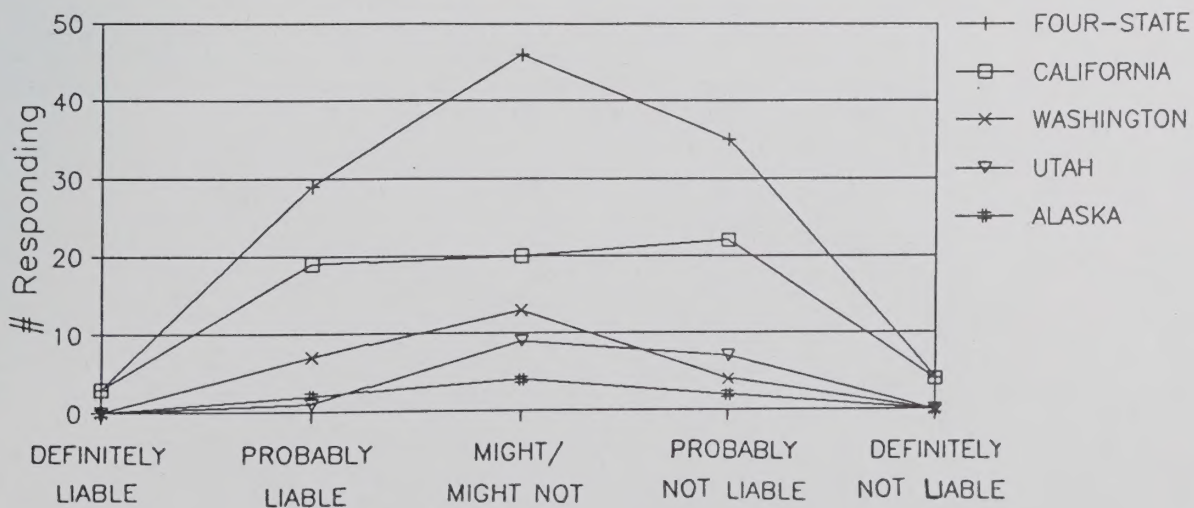
**TABLE D6: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE C --
RELATED TO CHANGED CIRCUMSTANCES FOR A PUBLIC BUILDING**



**TABLE D7: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE D --
RELATED TO APPROVING NEW CONSTRUCTION AT A PROBLEM SITE**



**TABLE D8: RESPONSES OF SURVEY PARTICIPANTS TO HYPOTHETICAL CASE E --
RELATED TO STORAGE OF HAZARDOUS MATERIALS**



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